SOI: 1.1/TAS
DOI: 10.15863/TAS
Scopus ASJC: 1000

ISSN 2308-4944 (print)
ISSN 2409-0085 (online)

№ 01 (105) 2022

Teoretičeskaâ i prikladnaâ nauka

Theoretical & Applied Science

Philadelphia, USA

Teoretičeskaâ i prikladnaâ nauka

Theoretical & Applied Science

01 (105)

2022

International Scientific Journal

Theoretical & Applied Science

Founder: **International Academy of Theoretical & Applied Sciences**

Published since 2013 year. Issued Monthly.

International scientific journal «Theoretical & Applied Science», registered in France, and indexed more than 45 international scientific bases.

Editorial office: http://T-Science.org Phone: +777727-606-81

E-mail: T-Science@mail.ru

ISSN 2308-4944

9 772308 494225 01

International Scientific Journal

Theoretical & Applied Science

Editorial Board:

International Scientific Journal

Theoretical & Applied Science

ISJ Theoretical & Applied Science, 01 (105), 788.
Philadelphia, USA

Impact Factor ICV = 6.630

Impact Factor ISI = 0.829
based on International Citation Report (ICR)

The percentage of rejected articles:

ISSN 2308-4944

Impact Factor:						
	ISRA (India)	= 6.317	SIS (USA)	= 0.912	ICV (Poland)	= 6.630
	ISI (Dubai, UAE)	= 1.582	РИНЦ (Russia)	= 3.939	PIF (India)	= 1.940
	GIF (Australia)	= 0.564	ESJI (KZ)	= 9.035	IBI (India)	= 4.260
	JIF	= 1.500	SJIF (Morocco)	= 7.184	OAJI (USA)	= 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2022 **Issue:** 01 **Volume:** 105
Published: 28.01.2022 **http://T-Science.org**

QR – Issue QR – Article

Denis Chemezov
Vladimir Industrial College
M.Sc.Eng., Corresponding Member of International Academy of Theoretical and Applied Sciences, Lecturer, Russian Federation
https://orcid.org/0000-0002-2747-552X
vic-science@yandex.ru

Pavel Balabanov
Vladimir Industrial College
Student, Russian Federation

Kirill Polyakov
Vladimir Industrial College
Student, Russian Federation

Nikolay Kornev
Vladimir Industrial College
Student, Russian Federation

Dmitriy Toloake
Vladimir Industrial College
Student, Russian Federation

Ilya Dokuchaev
Vladimir Industrial College
Student, Russian Federation

Ilya Zharkov
Vladimir Industrial College
Student, Russian Federation

REFERENCE DATA OF PRESSURE DISTRIBUTION ON THE SURFACES OF AIRFOILS (HYDROFOILS) HAVING THE NAMES BEGINNING WITH THE LETTER E (THE SECOND PART)

Abstract: *The results of the computer calculation of air (water) flow around the airfoils (hydrofoils) having the names beginning with the letter E (continuation) are presented in the article. The contours of pressure distribution on the surfaces of the airfoils (hydrofoils) at the angles of attack of 0, 15 and -15 degrees in conditions of the subsonic airplane flight speed were obtained.*

Key words: *the airfoil, hydrofoil, the angle of attack, pressure, the surface.*
Language: *English*
Citation: Chemezov, D., et al. (2022). Reference data of pressure distribution on the surfaces of airfoils (hydrofoils) having the names beginning with the letter E (the second part). *ISJ Theoretical & Applied Science, 01 (105)*, 601-671.
Soi: http://s-o-i.org/1.1/TAS-01-105-42 ***Doi***: https://dx.doi.org/10.15863/TAS.2022.01.105.42
Scopus ASCC: *1507.*

Introduction

Creating reference materials that determine the most accurate pressure distribution on the airfoils (hydrofoils) surfaces is an actual task of the airplane aerodynamics.

Materials and methods

The study of air (water) flow around the airfoils (hydrofoils) was carried out in a two-dimensional formulation by means of the computer calculation in the *Comsol Multiphysics* program. The airfoils (hydrofoils) in the cross section were taken as objects of research [1-16]. In this work, the airfoils (hydrofoils) having the names beginning with the letter *E* were adopted. Air (water) flow around the airfoils (hydrofoils) was carried out at the angles of attack (α) of 0, 15 and -15 degrees. The flight speed of the airplane in each case was subsonic. The airplane flight in the atmosphere was carried out under normal weather conditions. The geometric characteristics of the studied airfoils (hydrofoils) are presented in the Table 1. The geometric shapes of the airfoils (hydrofoils) in the cross section are presented in the Table 2.

Table 1. The geometric characteristics of the airfoils (hydrofoils).

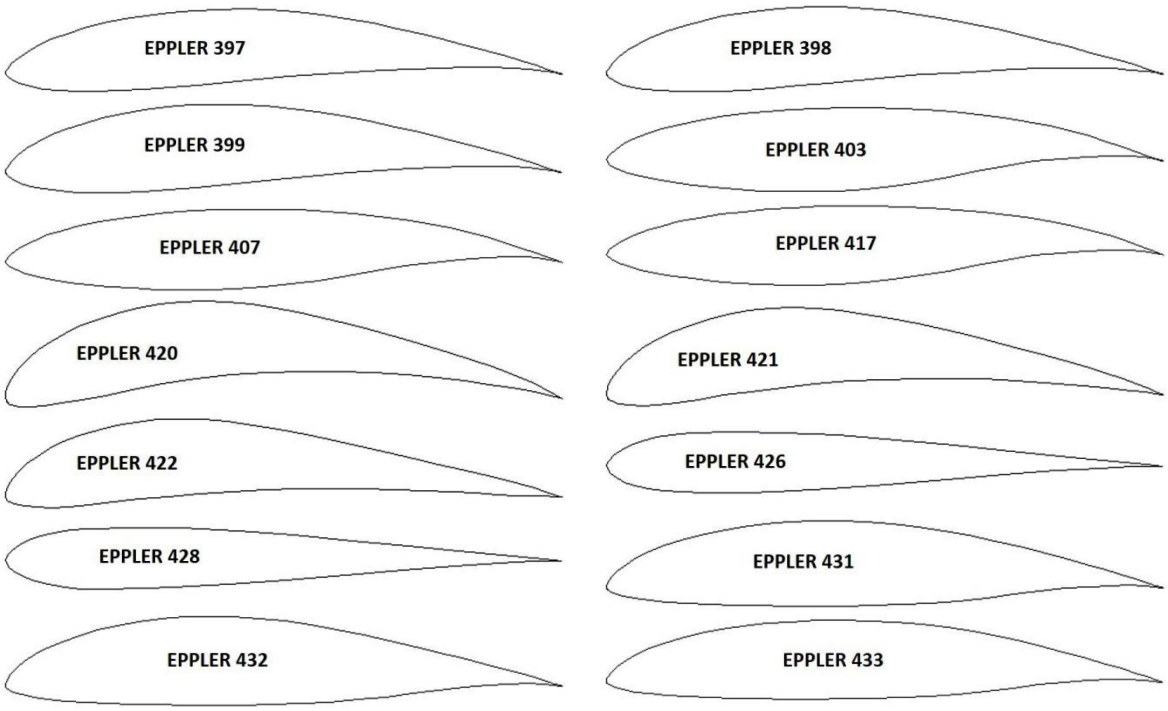
Airfoil (hydrofoil) name	Max. thickness	Max. camber	Leading edge radius	Trailing edge thickness
EPPLER 397	13.51% at 29.6% of the chord	5.3% at 50.9% of the chord	0.7085%	0.0%
EPPLER 398	14.16% at 29.6% of the chord	5.29% at 50.9% of the chord	0.8976%	0.0%
EPPLER 399	14.83% at 29.5% of the chord	5.14% at 50.6% of the chord	0.7714%	0.0%
EPPLER 403	14.95% at 37.0% of the chord	3.31% at 71.7% of the chord	0.9005%	0.0%
EPPLER 407	14.41% at 36.6% of the chord	3.5% at 71.7% of the chord	0.5013%	0.0%
EPPLER 417	14.17% at 37.0% of the chord	3.18% at 76.7% of the chord	0.7976%	0.0%
EPPLER 420	14.29% at 22.8% of the chord	10.71% at 40.5% of the chord	3.3862%	0.0%
EPPLER 421	14.51% at 26.0% of the chord	8.71% at 37.4% of the chord	2.675%	0.0%
EPPLER 422	13.99% at 24.1% of the chord	7.15% at 34.8% of the chord	2.5958%	0.0%
EPPLER 426	10.78% at 25.5% of the chord	0.71% at 40.1% of the chord	0.8648%	0.0%
EPPLER 428	11.08% at 17.2% of the chord	0.6% at 50.6% of the chord	1.1005%	0.0%
EPPLER 431	15.12% at 37.4% of the chord	4.22% at 42.6% of the chord	1.1577%	0.0%
EPPLER 432	15.97% at 37.4% of the chord	4.44% at 37.4% of the chord	1.25%	0.0%
EPPLER 433	14.21% at 42.6% of the chord	3.98% at 42.6% of the chord	0.9563%	0.0%
EPPLER 434	13.33% at 38.6% of the chord	4.31% at 38.6% of the chord	0.9904%	0.0%
EPPLER 435	16.19% at 40.9% of the chord	4.37% at 56.2% of the chord	1.2769%	0.0%
EPPLER 472	12.1% at 17.5% of the chord	0.0% at 0.0% of the chord	1.7011%	0.0%
EPPLER 473	16.19% at 21.2% of the chord	0.0% at 0.0% of the chord	1.9857%	0.0%
EPPLER 476	16.73% at 31.7% of the chord	0.0% at 0.0% of the chord	0.5641%	0.0%
EPPLER 477	15.35% at 31.7% of the chord	0.0% at 0.0% of the chord	0.4933%	0.0%
EPPLER 478	15.7% at 25.9% of the chord	0.0% at 0.0% of the chord	0.9298%	0.0%
EPPLER 479	16.57% at 25.7% of the chord	0.0% at 0.0% of the chord	1.9578%	0.0%
EPPLER 485	12.5% at 31.8% of the chord	1.14% at 27.1% of the chord	0.5113%	0.0%
EPPLER 49	7.19% at 39.0% of the chord	7.82% at 44.8% of the chord	0.1648%	0.0%
EPPLER 502	15.65% at 42.1% of the chord	1.52% at 32.3% of the chord	0.3073%	0.0%
EPPLER 520	15.01% at 36.7% of the chord	0.07% at 0.0% of the chord	0.3232%	0.0%
EPPLER 521	13.77% at 37.0% of the chord	0.07% at 0.0% of the chord	0.2668%	0.0%
EPPLER 540	16.87% at 45.5% of the chord	1.61% at 30.9% of the chord	0.5182%	0.0%
EPPLER 541	16.63% at 46.2% of the chord	1.67% at 36.3% of the chord	0.4912%	0.0%
EPPLER 542	16.86% at 41.3% of the chord	1.91% at 31.5% of the chord	0.5713%	0.0%
EPPLER 543	17.22% at 40.7% of the chord	1.87% at 31.0% of the chord	0.6034%	0.0%
EPPLER 544	17.5% at 40.0% of the chord	1.86% at 30.5% of the chord	0.6465%	0.0%
EPPLER 545	17.45% at 39.3% of the chord	1.81% at 29.9% of the chord	0.7335%	0.0%
EPPLER 546	16.24% at 40.3% of the chord	1.77% at 26.2% of the chord	0.581%	0.0%
EPPLER 547	17.36% at 40.3% of the chord	2.06% at 30.7% of the chord	0.8332%	0.0%
EPPLER 548	17.39% at 35.4% of the chord	2.23% at 26.1% of the chord	1.0157%	0.0%
EPPLER 549	18.1% at 38.7% of the chord	2.08% at 34.0% of the chord	0.8619%	0.0%
EPPLER 550	18.2% at 34.0% of the chord	2.25% at 29.4% of the chord	1.0571%	0.0%
EPPLER 551	18.23% at 32.4% of the chord	2.82% at 57.1% of the chord	0.9978%	0.0%
EPPLER 552	18.44% at 32.4% of the chord	2.58% at 51.8% of the chord	1.0956%	0.0%
EPPLER 553	18.13% at 31.8% of the chord	2.97% at 56.5% of the chord	1.0294%	0.0%
EPPLER 554	18.23% at 31.8% of the chord	2.67% at 56.6% of the chord	1.2562%	0.0%
EPPLER 555	16.03% at 31.9% of the chord	2.6% at 67.4% of the chord	0.9633%	0.0%
EPPLER 556	16.01% at 31.1% of the chord	3.12% at 61.4% of the chord	0.9732%	0.0%
EPPLER 557	16.01% at 30.2% of the chord	3.68% at 60.8% of the chord	1.0419%	0.0%
EPPLER 558	16.03% at 25.9% of the chord	3.55% at 51.5% of the chord	1.4127%	0.0%
EPPLER 559	16.03% at 24.8% of the chord	4.21% at 50.5% of the chord	1.5288%	0.0%
EPPLER 560	16.05% at 23.7% of the chord	4.85% at 49.4% of the chord	1.6742%	0.0%
EPPLER 561	16.88% at 28.2% of the chord	5.11% at 49.4% of the chord	1.8637%	0.0%

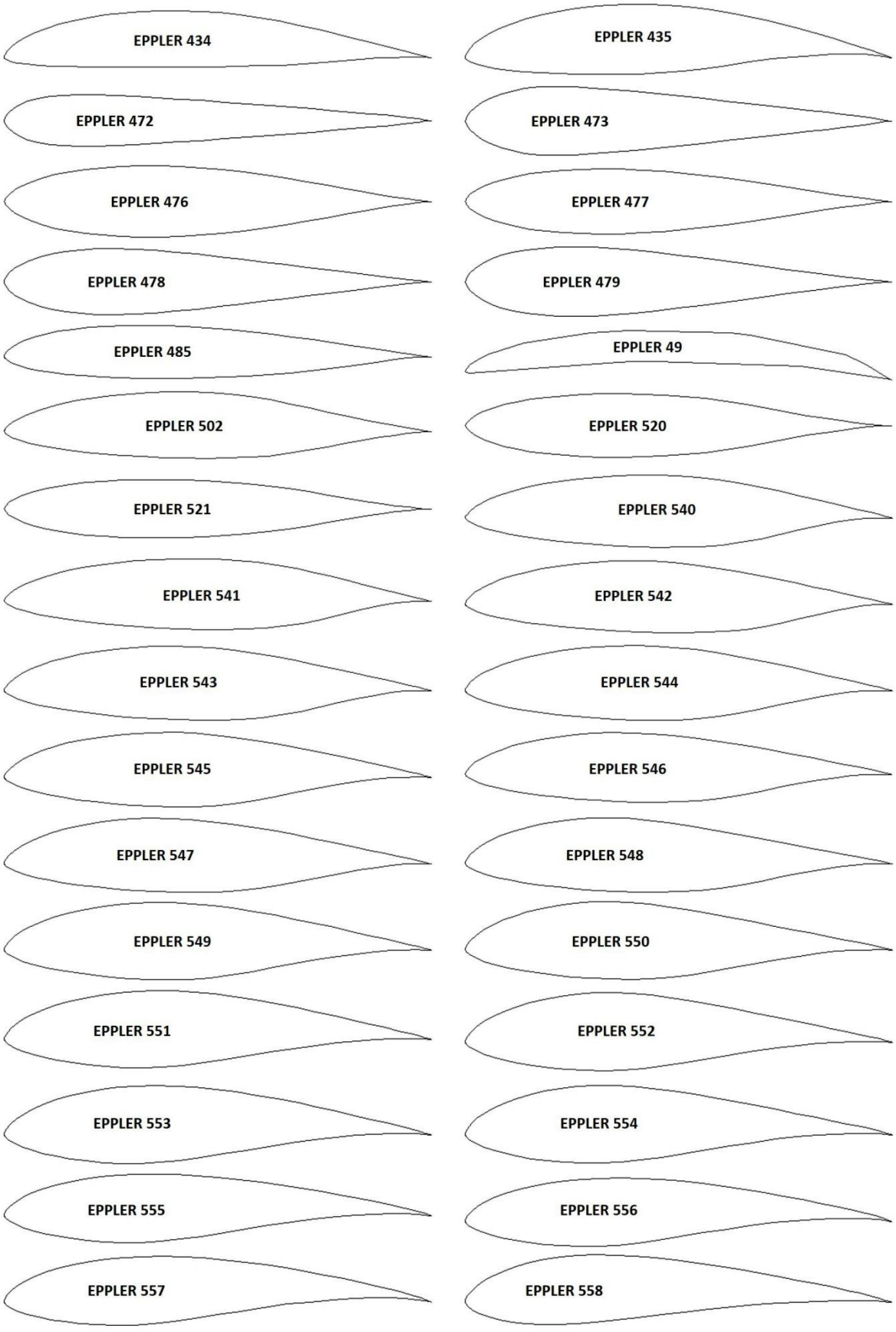
EPPLER 562	14.99% at 25.3% of the chord	3.87% at 56.3% of the chord	1.2801%	0.0%
EPPLER 58	5.6% at 30.0% of the chord	6.45% at 50.0% of the chord	0.6177%	0.0%
EPPLER 580	16.08% at 35.5% of the chord	4.08% at 60.9% of the chord	1.1965%	0.0%
EPPLER 582	14.72% at 37.8% of the chord	4.26% at 43.1% of the chord	0.9815%	0.0%
EPPLER 583	16.47% at 38.0% of the chord	4.48% at 38.0% of the chord	1.2462%	0.0%
EPPLER 584	16.59% at 38.3% of the chord	4.52% at 38.3% of the chord	1.2767%	0.0%
EPPLER 585	14.62% at 37.6% of the chord	4.26% at 42.8% of the chord	0.9729%	0.0%
EPPLER 587	16.63% at 41.1% of the chord	4.14% at 51.2% of the chord	0.9288%	0.0%
EPPLER 59	5.6% at 25.0% of the chord	5.2% at 50.0% of the chord	0.6695%	0.0%
EPPLER 593	11.26% at 24.2% of the chord	4.64% at 29.2% of the chord	1.1103%	0.0%
EPPLER 598	11.11% at 24.2% of the chord	4.51% at 34.4% of the chord	1.1484%	0.0%
EPPLER 603	18.95% at 38.4% of the chord	3.29% at 38.4% of the chord	1.2607%	0.0%
EPPLER 604	18.76% at 37.3% of the chord	3.32% at 42.3% of the chord	0.7306%	0.0%
EPPLER 625	13.0% at 30.0% of the chord	2.9% at 22.5% of the chord	1.3169%	0.0%
EPPLER 635	11.63% at 28.6% of the chord	2.86% at 19.4% of the chord	0.8576%	0.0%
EPPLER 636	11.88% at 27.7% of the chord	3.18% at 23.0% of the chord	0.9631%	0.0%
EPPLER 637	12.06% at 26.7% of the chord	3.54% at 26.7% of the chord	1.1617%	0.0%
EPPLER 638	12.31% at 30.7% of the chord	4.41% at 25.7% of the chord	0.8391%	0.0%
EPPLER 639	12.55% at 29.7% of the chord	4.79% at 29.7% of the chord	0.9494%	0.0%
EPPLER 642	15.06% at 40.4% of the chord	3.11% at 35.3% of the chord	1.0429%	0.0%
EPPLER 654	17.18% at 36.1% of the chord	4.83% at 46.5% of the chord	1.4994%	0.0%
EPPLER 655	17.33% at 37.3% of the chord	3.98% at 42.4% of the chord	1.3771%	0.0%
EPPLER 656	16.21% at 37.0% of the chord	4.81% at 42.2% of the chord	1.3796%	0.0%
EPPLER 657	15.56% at 37.0% of the chord	4.65% at 47.6% of the chord	1.295%	0.0%
EPPLER 66	10.13% at 31.4% of the chord	3.98% at 52.9% of the chord	0.7369%	0.0%
EPPLER 664	16.61% at 44.6% of the chord	2.75% at 39.5% of the chord	1.1508%	0.0%
EPPLER 664 (EXTENDED)	-	-	-	-
EPPLER 668	13.9% at 37.3% of the chord	3.98% at 47.8% of the chord	0.8462%	0.0%
EPPLER 67	11.62% at 31.9% of the chord	3.65% at 53.1% of the chord	0.7299%	0.0%
EPPLER 678	15.08% at 40.0% of the chord	5.21% at 50.6% of the chord	1.112%	0.0%
EPPLER 68	13.1% at 32.5% of the chord	3.33% at 53.4% of the chord	0.8736%	0.0%
EPPLER 682	15.3% at 40.2% of the chord	3.02% at 40.2% of the chord	0.9833%	0.0%
EPPLER 694	15.43% at 40.3% of the chord	4.96% at 56.1% of the chord	1.0328%	0.0%
EPPLER 715	15.02% at 29.3% of the chord	2.77% at 43.9% of the chord	0.7606%	0.0%
EPPLER 748	19.73% at 28.6% of the chord	4.58% at 53.9% of the chord	2.1445%	0.0%
EPPLER 793	15.62% at 25.7% of the chord	4.04% at 45.9% of the chord	1.578%	0.0%
EPPLER 817 HYDROFOIL	10.98% at 32.6% of the chord	2.88% at 68.9% of the chord	0.1512%	0.0%
EPPLER 818 HYDROFOIL	9.37% at 32.9% of the chord	2.79% at 69.4% of the chord	0.0344%	0.0%
EPPLER 855	15.7% at 31.3% of the chord	3.77% at 51.6% of the chord	0.8849%	0.0%
EPPLER 856	18.15% at 30.4% of the chord	4.25% at 50.6% of the chord	1.5131%	0.0%
EPPLER 857	20.34% at 29.4% of the chord	4.68% at 44.2% of the chord	1.2585%	0.0%
EPPLER 858	22.7% at 28.7% of the chord	4.84% at 43.4% of the chord	3.7064%	0.0%
EPPLER 862 STRUT	32.37% at 28.5% of the chord	0.0% at 0.0% of the chord	6.4601%	1.2%
EPPLER 863 STRUT	35.73% at 28.5% of the chord	0.0% at 0.0% of the chord	7.4385%	1.4%
EPPLER 864 STRUT	38.83% at 32.7% of the chord	0.04% at 11.0% of the chord	8.4468%	1.6%
EPPLER 874 HYDROFOIL	7.9% at 27.3% of the chord	0.95% at 34.6% of the chord	0.4646%	0.0%
EPPLER 904	9.0% at 44.5% of the chord	1.34% at 50.3% of the chord	0.3163%	0.0%
EPPLER 908	9.0% at 44.3% of the chord	2.76% at 67.4% of the chord	0.3114%	0.0%
EPPLER E1212	17.7% at 22.0% of the chord	3.21% at 36.4% of the chord	2.6419%	0.0%
EPPLER E1212MOD	17.71% at 20.0% of the chord	2.61% at 35.0% of the chord	3.2979%	0.0%
Eppler E325	12.62% at 34.3% of the chord	1.75% at 16.3% of the chord	0.9487%	0.0%
Eppler E63	4.25% at 19.8% of the chord	5.39% at 52.1% of the chord	0.1503%	0.0%
EPPLER E662	15.02% at 42.4% of the chord	4.08% at 47.6% of the chord	1.0597%	0.0%
EPPLER E836 HYDROFOIL	12.64% at 42.8% of the chord	0.0% at 0.0% of the chord	0.6774%	0.0%
EPPLER E837 HYDROFOIL	16.11% at 36.9% of the chord	0.0% at 0.0% of the chord	0.9612%	0.0%
EPPLER E838 HYDROFOIL	18.37% at 37.2% of the chord	0.0% at 46.5% of the chord	1.0307%	0.0%
EPPLER E850	7.98% at 35.1% of the chord	1.83% at 70.9% of the chord	-0.0238%	0.289%
Eppler E850 propeller airfoil	7.98% at 35.1% of the chord	1.83% at 70.9% of the chord	0.03%	0.0%

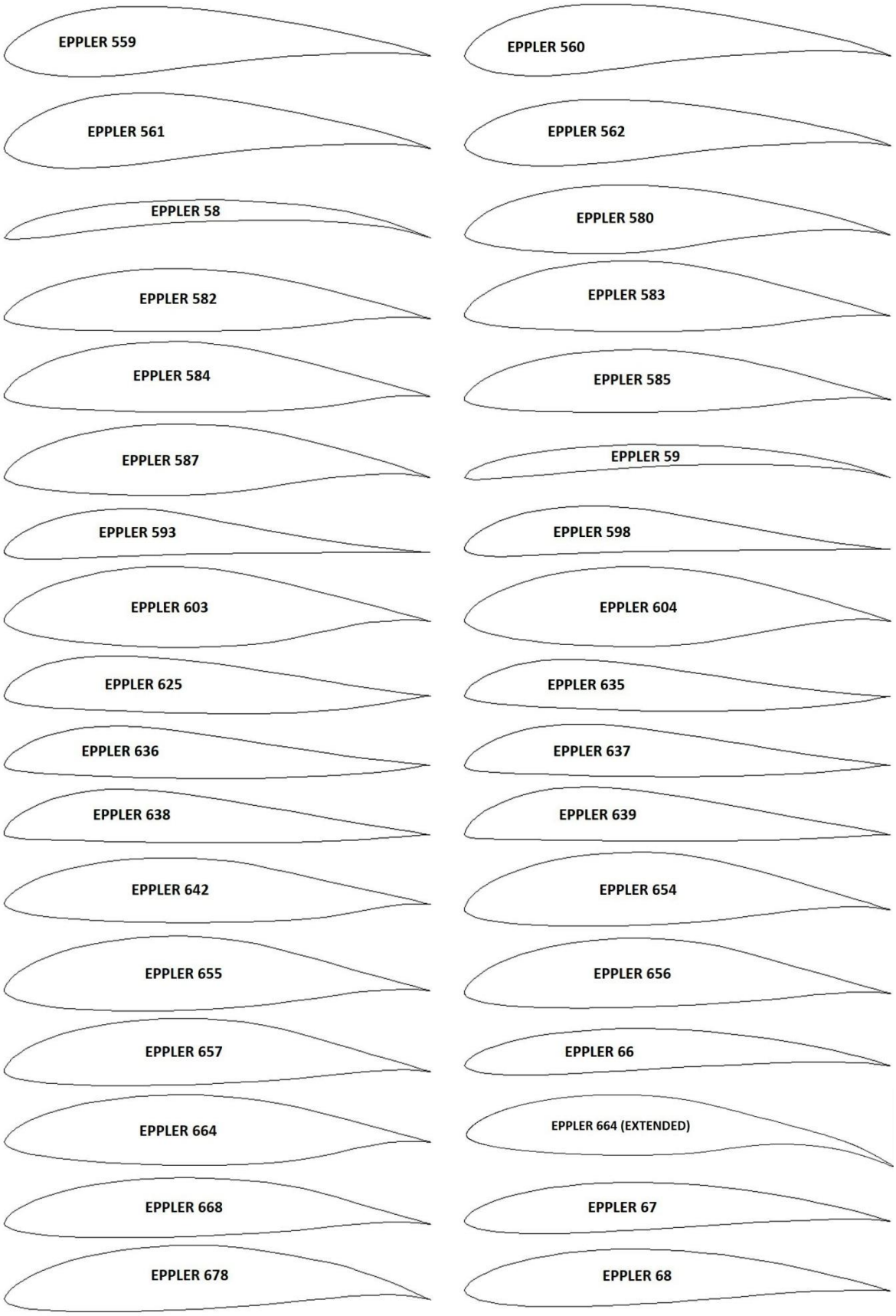
EPPLER E851	9.0% at 34.3% of the chord	2.35% at 65.3% of the chord	0.0737%	0.0%
EPPLER E852	10.05% at 38.5% of the chord	2.79% at 59.5% of the chord	0.1253%	0.0%
EPPLER E853	11.59% at 32.8% of the chord	3.03% at 58.6% of the chord	0.3326%	0.0%
EPPLER E854	13.41% at 32.2% of the chord	3.25% at 52.6% of the chord	0.5092%	0.0%
Eppler EA 6 [-1] - 009	9.0% at 30.0% of the chord	0.11% at 95.0% of the chord	0.9166%	0.0%
Eppler EA 6 [-1] - 012	12.0% at 30.0% of the chord	0.0% at 0.0% of the chord	1.5218%	0.0%
EPPLER EA 6(-1)-009	9.0% at 30.0% of the chord	0.0% at 0.0% of the chord	0.9166%	0.0%
EPPLER EA 6(-1)-012	12.0% at 30.0% of the chord	0.0% at 0.0% of the chord	1.5218%	0.0%
Eppler EA 8 [-1] - 006	6.0% at 30.0% of the chord	0.0% at 0.0% of the chord	0.6212%	0.0%
EPPLER EA 8(-1)-006	6.0% at 30.0% of the chord	0.0% at 0.0% of the chord	0.6212%	0.0%
EPPLER EC 86(-3)-914	14.27% at 33.1% of the chord	4.39% at 71.7% of the chord	0.3418%	0.0%
EPPLER STE 87(-3)-914	14.61% at 35.5% of the chord	4.42% at 56.9% of the chord	1.0725%	-0.086%
EPPLER STE 871-514	13.97% at 44.4% of the chord	2.65% at 78.3% of the chord	1.1321%	-0.05%
EPPLER STF 863-615	14.72% at 47.2% of the chord	4.58% at 72.2% of the chord	0.6502%	-0.081%
Eppler/Shen hydrofoil E900	9.01% at 52.5% of the chord	0.0% at 0.0% of the chord	0.4101%	0.0%
ESA40/JCE	10.72% at 27.1% of the chord	2.01% at 12.0% of the chord	1.1745%	0.885%
ESPADA	5.57% at 17.0% of the chord	6.03% at 43.5% of the chord	0.9319%	0.0%

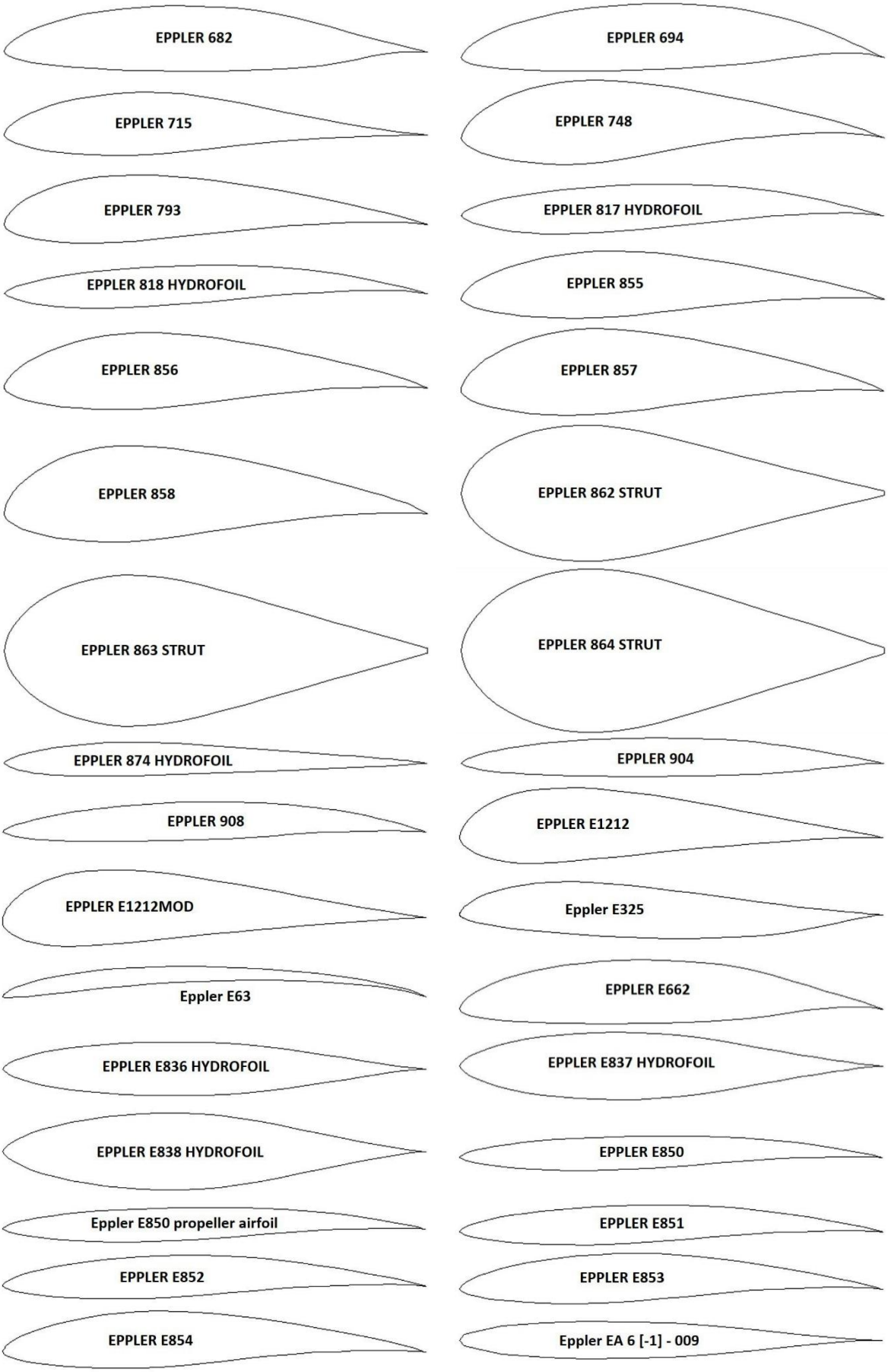
Note:
EPPLER 59 (Eppler E59 low Reynolds number airfoil);
EPPLER E1212 (Eppler E1212 general aviation airfoil);
EPPLER E1212MOD (Eppler E1212 general aviation airfoil (as modified for use as Quickie wing airfoil));
Eppler E63 (Low Reynolds number airfoil (4.25%));
Eppler EA 6 [-1] – 009, *Eppler EA 6 [-1] – 012* (R. Eppler (Germany));
Eppler EA 8 [-1] – 006 (R. Eppler (Germany));
Eppler/Shen hydrofoil E900 (From: Johannes Schoon).

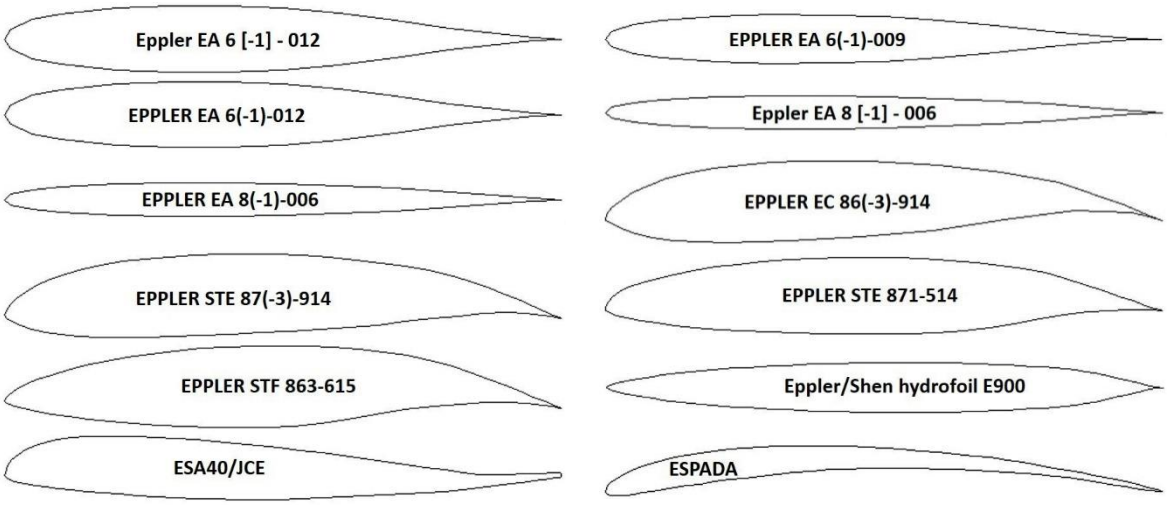
Table 2. The geometric shapes of the airfoils (hydrofoils) in the cross section.




EPPLER 434
EPPLER 435
EPPLER 472
EPPLER 473
EPPLER 476
EPPLER 477
EPPLER 478
EPPLER 479
EPPLER 485
EPPLER 49
EPPLER 502
EPPLER 520
EPPLER 521
EPPLER 540
EPPLER 541
EPPLER 542
EPPLER 543
EPPLER 544
EPPLER 545
EPPLER 546
EPPLER 547
EPPLER 548
EPPLER 549
EPPLER 550
EPPLER 551
EPPLER 552
EPPLER 553
EPPLER 554
EPPLER 555
EPPLER 556
EPPLER 557
EPPLER 558


EPPLER 559
EPPLER 560
EPPLER 561
EPPLER 562
EPPLER 58
EPPLER 580
EPPLER 582
EPPLER 583
EPPLER 584
EPPLER 585
EPPLER 587
EPPLER 59
EPPLER 593
EPPLER 598
EPPLER 603
EPPLER 604
EPPLER 625
EPPLER 635
EPPLER 636
EPPLER 637
EPPLER 638
EPPLER 639
EPPLER 642
EPPLER 654
EPPLER 655
EPPLER 656
EPPLER 657
EPPLER 66
EPPLER 664
EPPLER 664 (EXTENDED)
EPPLER 668
EPPLER 67
EPPLER 678
EPPLER 68


EPPLER 682
EPPLER 694
EPPLER 715
EPPLER 748
EPPLER 793
EPPLER 817 HYDROFOIL
EPPLER 818 HYDROFOIL
EPPLER 855
EPPLER 856
EPPLER 857
EPPLER 858
EPPLER 862 STRUT
EPPLER 863 STRUT
EPPLER 864 STRUT
EPPLER 874 HYDROFOIL
EPPLER 904
EPPLER 908
EPPLER E1212
EPPLER E1212MOD
Eppler E325
Eppler E63
EPPLER E662
EPPLER E836 HYDROFOIL
EPPLER E837 HYDROFOIL
EPPLER E838 HYDROFOIL
EPPLER E850
Eppler E850 propeller airfoil
EPPLER E851
EPPLER E852
EPPLER E853
EPPLER E854
Eppler EA 6 [-1] - 009



Results and discussion

The calculated pressure contours on the surfaces of the airfoils (hydrofoils) at the different angles of attack are presented in the Figs. 1-124.

Calculated magnitudes on the scale can be represented as the basic magnitudes when comparing the pressure drop under conditions of changing the angle of attack of the airfoils (hydrofoils).

The analysis of changing the drag was performed for the EPPLER series airfoils and hydrofoils. The highest magnitudes of positive and negative pressures at the leading edge of the airfoils (hydrofoils) were determined, which characterize the increase in the drag.

The horizontal position of the EPPLER E662 airfoil generates the higher positive pressure at the leading edge than the other airfoils, which leads to the least favorable airplane flight conditions.

An increase in the drag by several times is observed when changing the angle of attack of the airfoil (hydrofoil) by 15 degrees. For example, the leading edge pressure reaches -154 kPa at the positive angle of attack of the EPPLER E852 airfoil. The Eppler/Shen hydrofoil E900 at the positive and negative angles of attack has almost the same mirror pressure drops on the upper and lower surfaces.

The maximum increase in the leading edge pressure occurs at the angle of attack of -15 degrees for the most airfoils (hydrofoils). The maximum increase in pressure at the leading edge occurs at the angle of attack of 15 degrees for the following airfoils (hydrofoils): EPPLER 417, EPPLER 434, EPPLER 472, EPPLER 473, EPPLER 476, EPPLER 478, EPPLER 479, EPPLER 49, EPPLER 58, EPPLER 59, EPPLER 636, EPPLER 637, EPPLER 638, EPPLER 639, EPPLER 664 (EXTENDED), EPPLER 68, EPPLER 817 HYDROFOIL, EPPLER 862 STRUT, EPPLER 864 STRUT, EPPLER 874 HYDROFOIL, EPPLER 904, EPPLER 908, Eppler E63, EPPLER E662, EPPLER E836 HYDROFOIL, EPPLER E837 HYDROFOIL, EPPLER E838 HYDROFOIL, EPPLER E850, Eppler E850 propeller airfoil, EPPLER E851, EPPLER E852, EPPLER E853, Eppler EA 6 [-1] – 012, EPPLER EA 6(-1)-012, EPPLER EC 86(-3)-914, EPPLER STF 863-615, Eppler/Shen hydrofoil E900, ESA40/JCE, ESPADA.

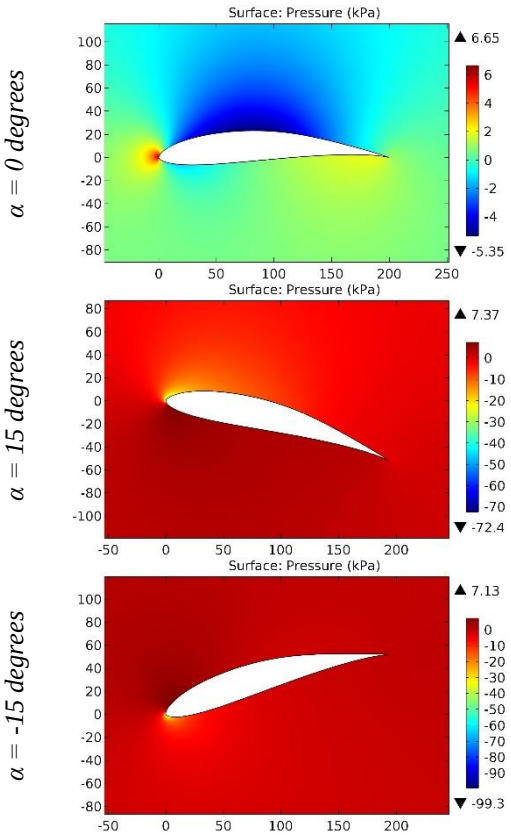


Figure 1. The pressure contours on the surfaces of the EPPLER 397 airfoil.

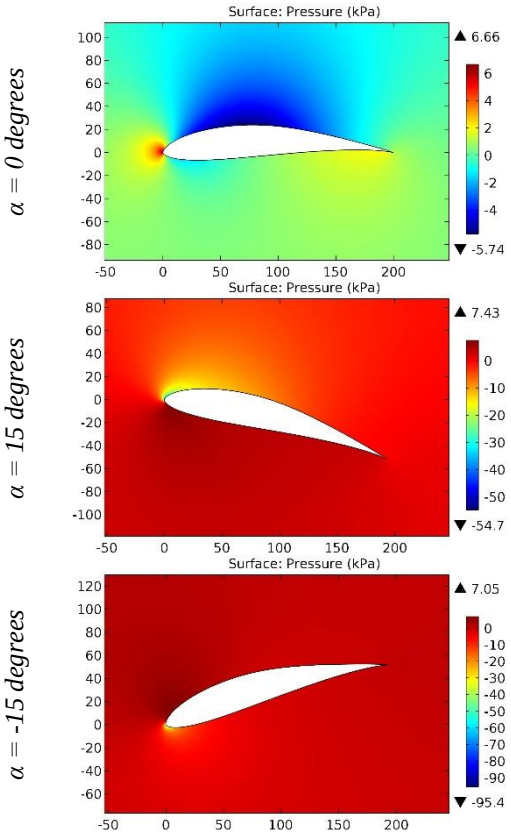


Figure 2. The pressure contours on the surfaces of the EPPLER 398 airfoil.

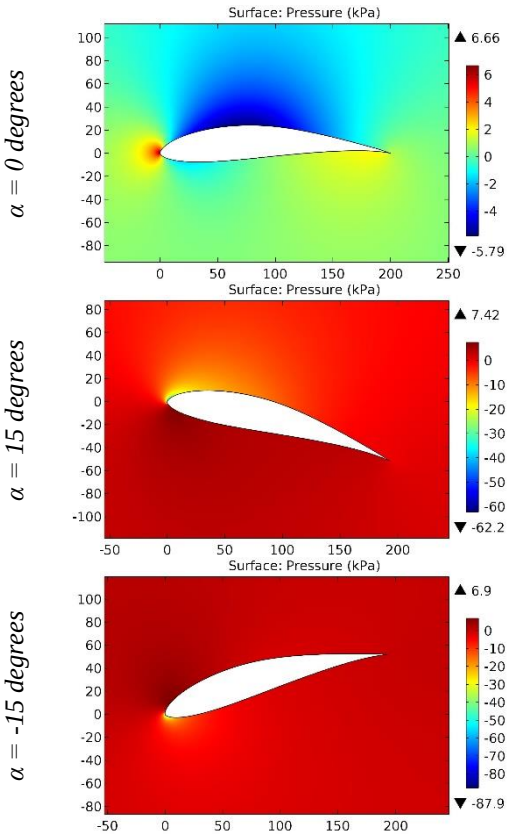


Figure 3. The pressure contours on the surfaces of the EPPLER 399 airfoil.

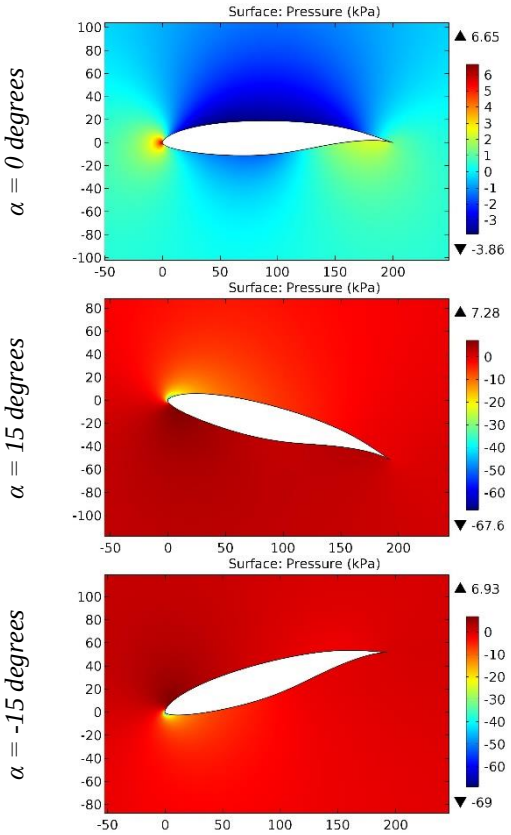


Figure 4. The pressure contours on the surfaces of the EPPLER 403 airfoil.

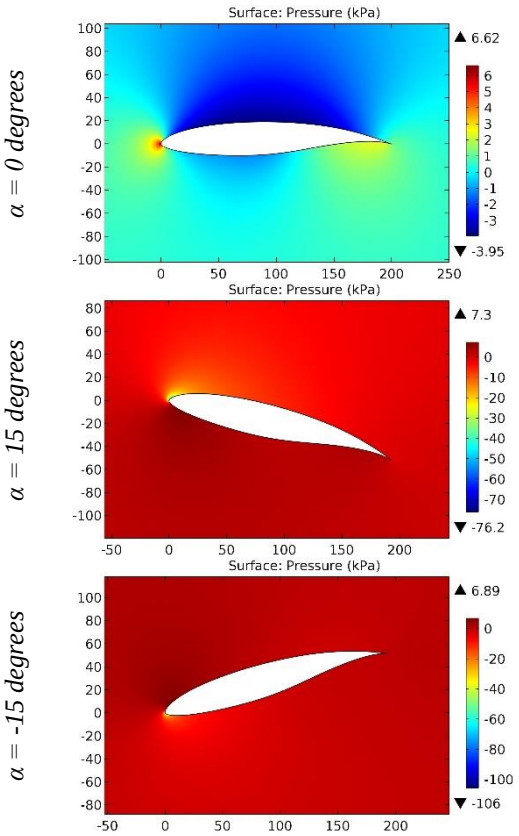


Figure 5. The pressure contours on the surfaces of the EPPLER 407 airfoil.

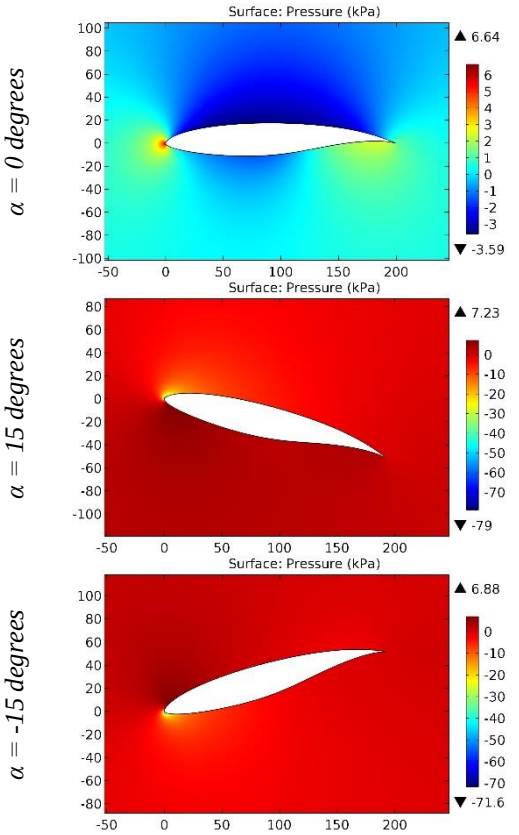


Figure 6. The pressure contours on the surfaces of the EPPLER 417 airfoil.

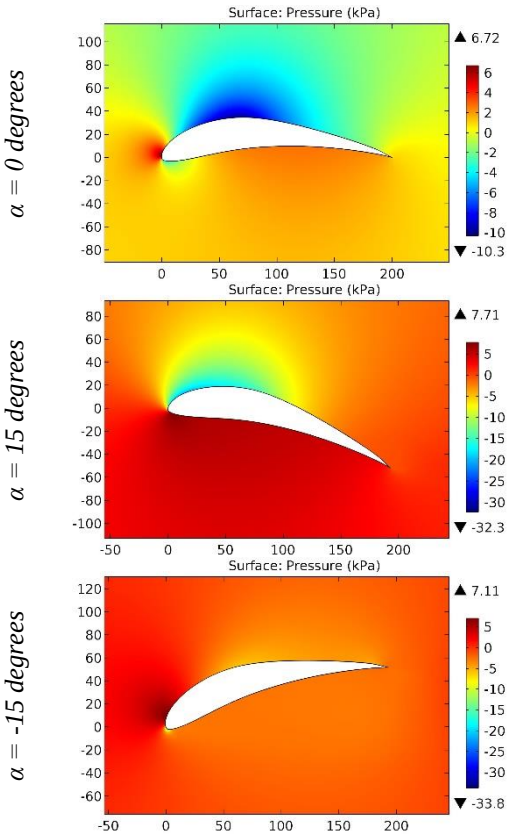


Figure 7. The pressure contours on the surfaces of the EPPLER 420 airfoil.

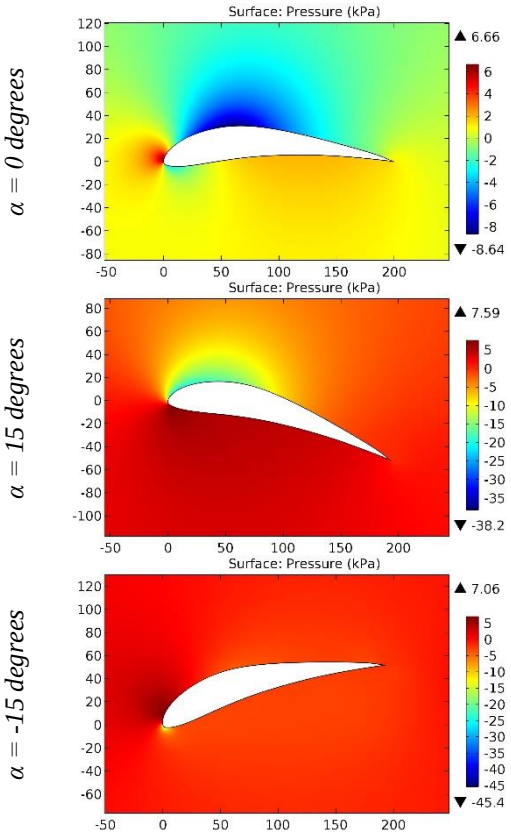


Figure 8. The pressure contours on the surfaces of the EPPLER 421 airfoil.

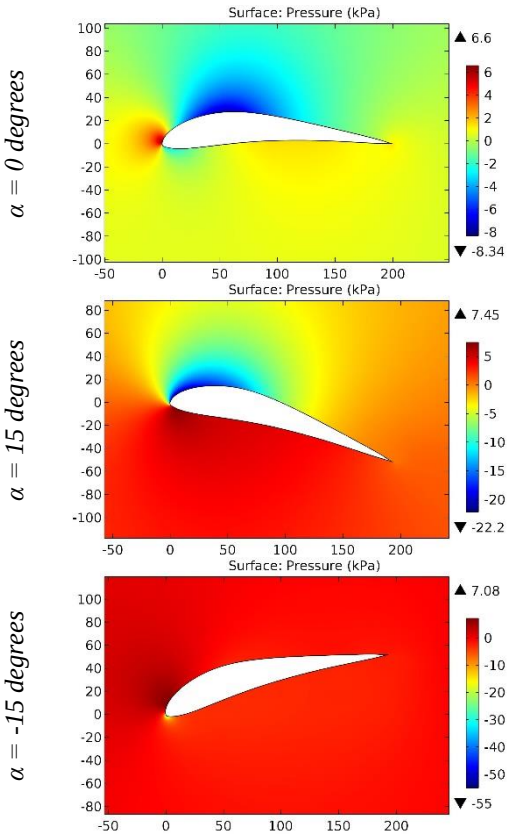


Figure 9. The pressure contours on the surfaces of the EPPLER 422 airfoil.

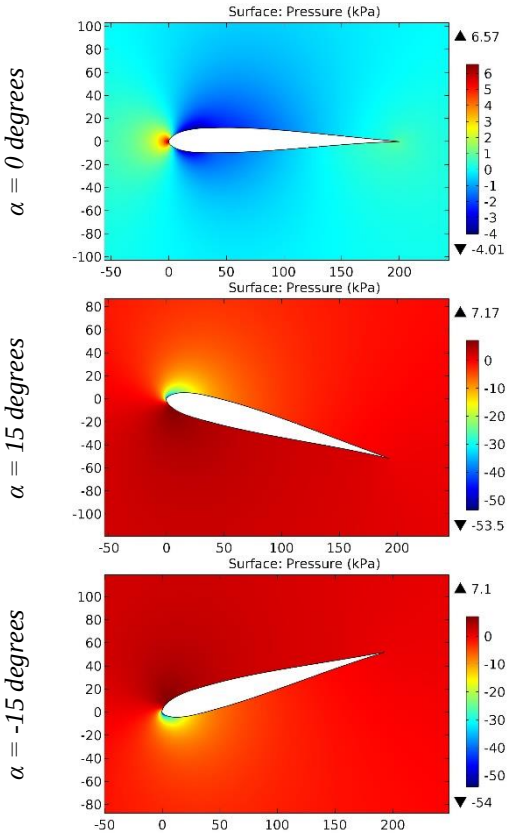


Figure 10. The pressure contours on the surfaces of the EPPLER 426 airfoil.

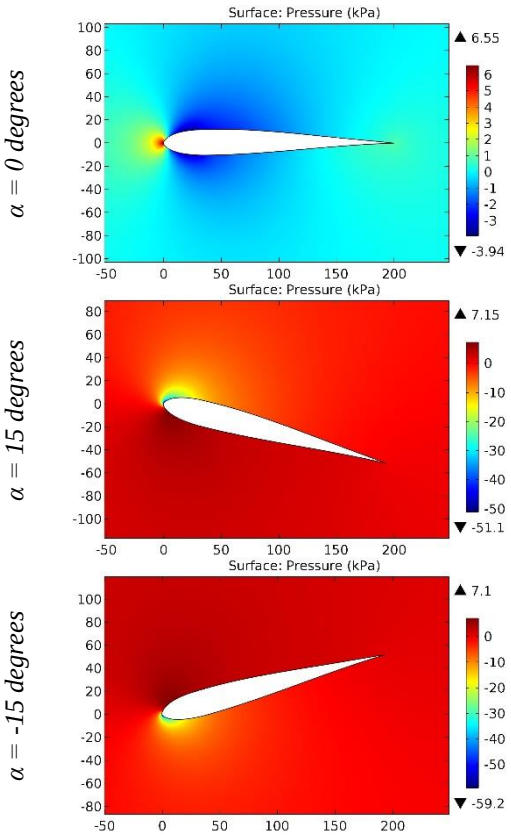


Figure 11. The pressure contours on the surfaces of the EPPLER 428 airfoil.

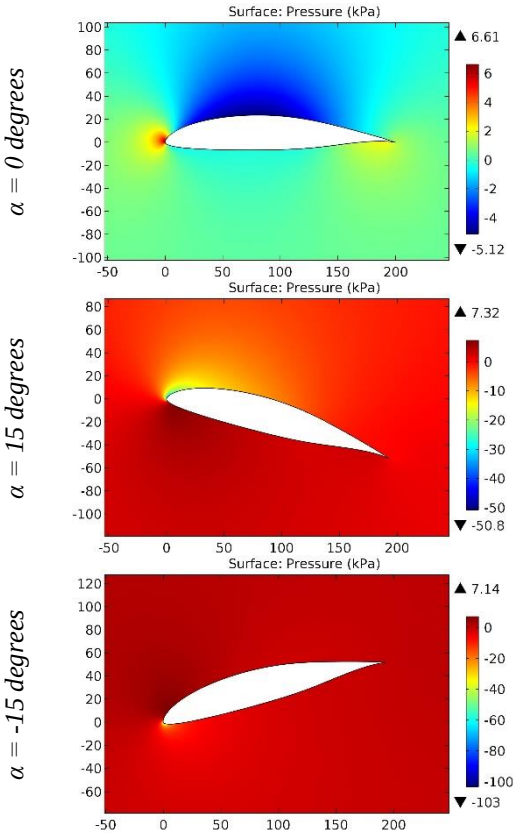


Figure 12. The pressure contours on the surfaces of the EPPLER 431 airfoil.

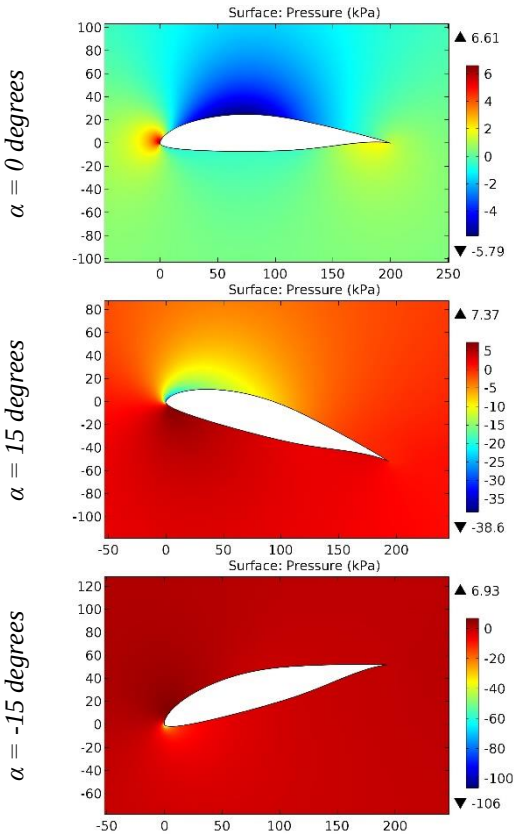


Figure 13. The pressure contours on the surfaces of the EPPLER 432 airfoil.

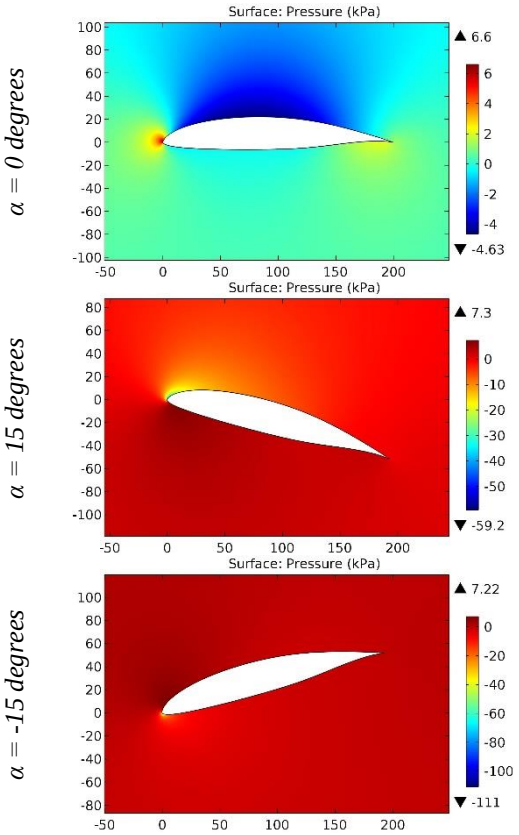


Figure 14. The pressure contours on the surfaces of the EPPLER 433 airfoil.

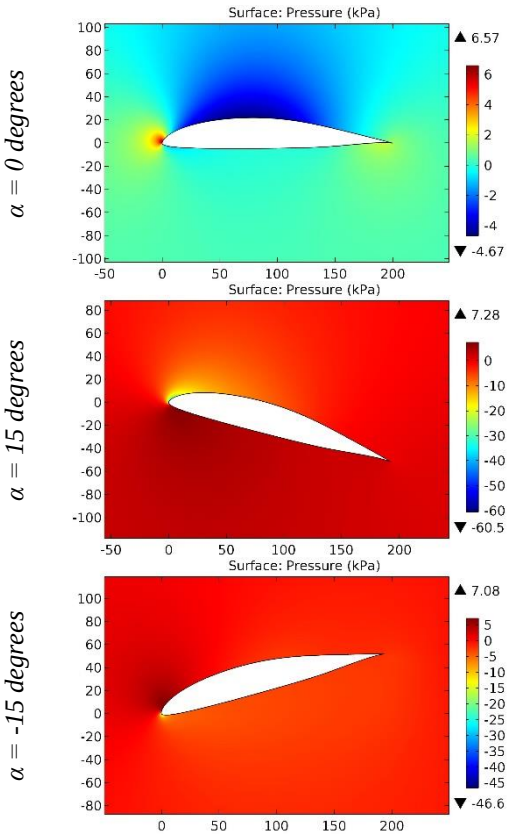


Figure 15. The pressure contours on the surfaces of the EPPLER 434 airfoil.

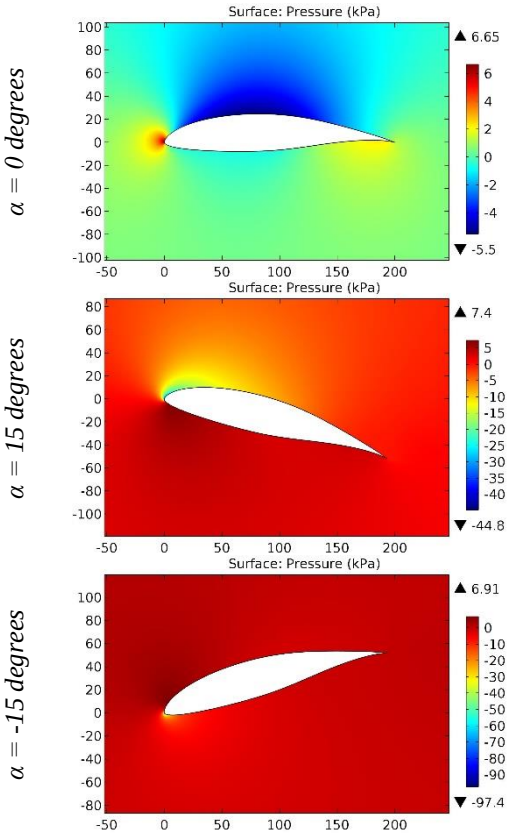


Figure 16. The pressure contours on the surfaces of the EPPLER 435 airfoil.

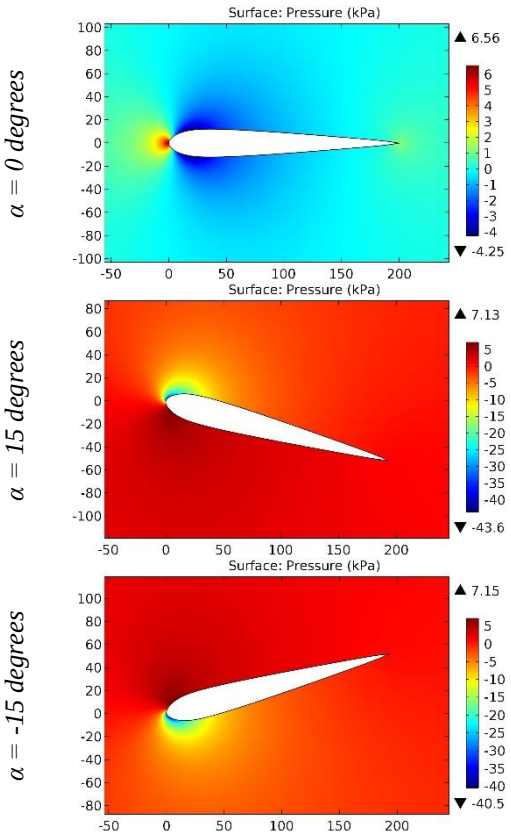


Figure 17. The pressure contours on the surfaces of the EPPLER 472 airfoil.

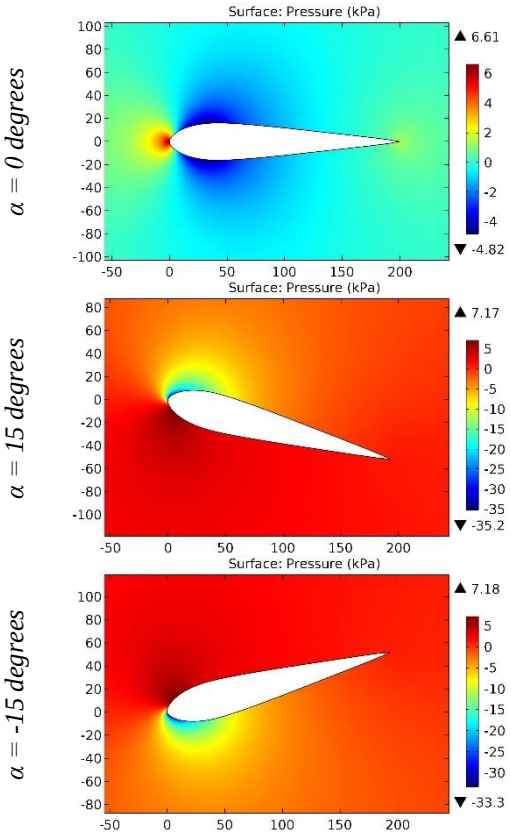


Figure 18. The pressure contours on the surfaces of the EPPLER 473 airfoil.

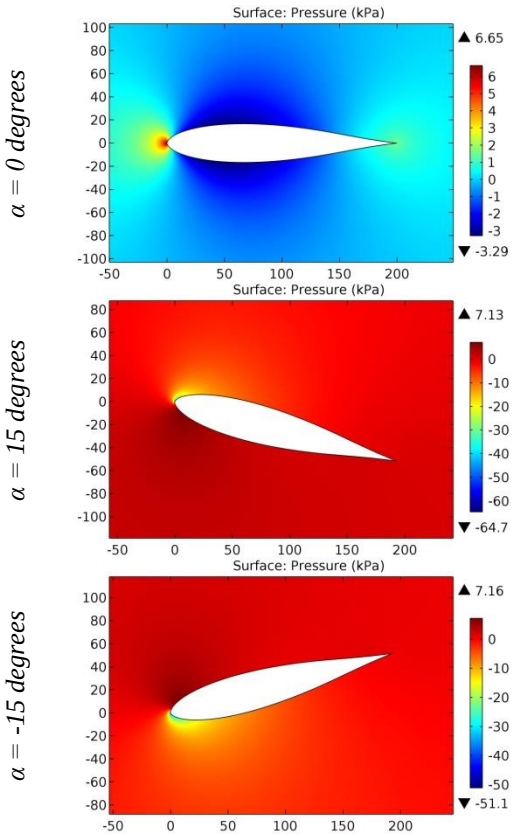


Figure 19. The pressure contours on the surfaces of the EPPLER 476 airfoil.

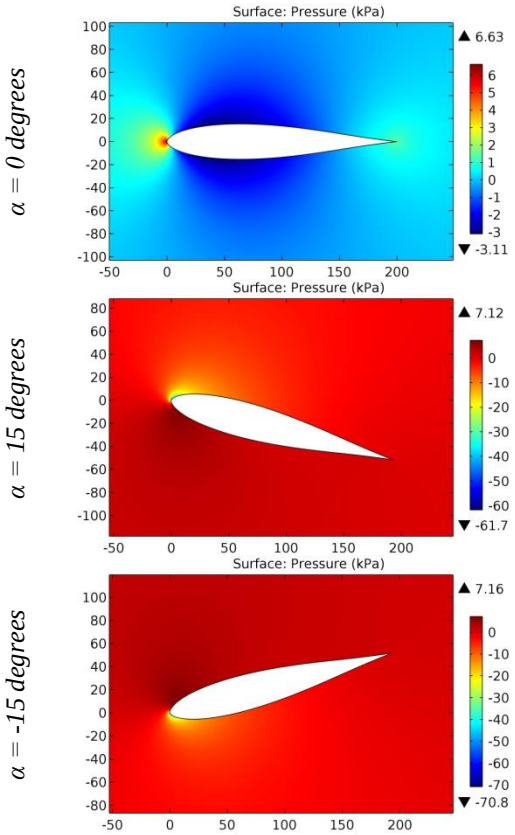


Figure 20. The pressure contours on the surfaces of the EPPLER 477 airfoil.

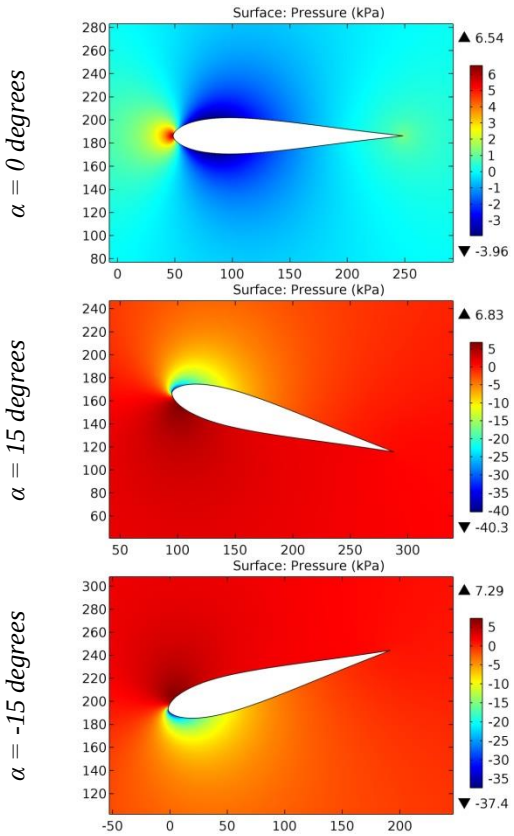


Figure 21. The pressure contours on the surfaces of the EPPLER 478 airfoil.

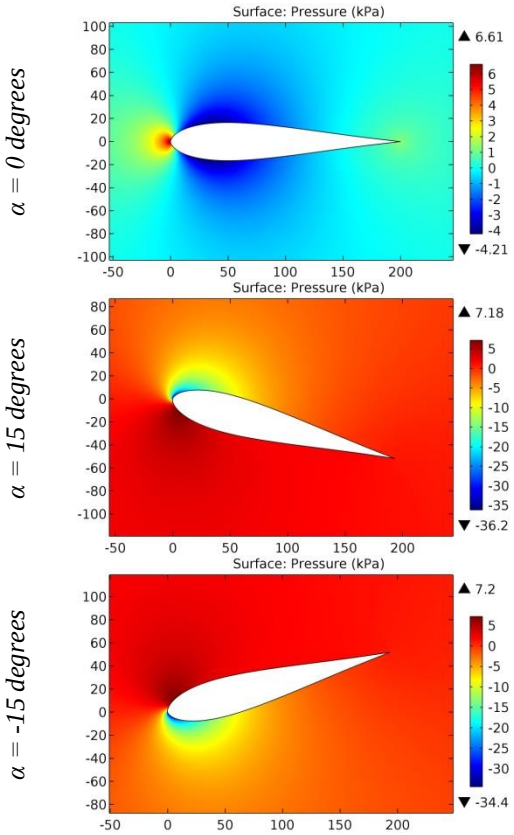


Figure 22. The pressure contours on the surfaces of the EPPLER 479 airfoil.

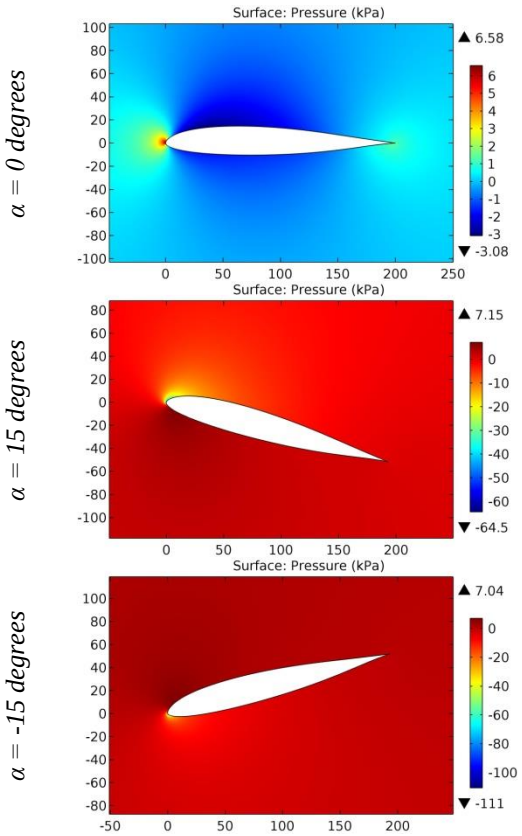


Figure 23. The pressure contours on the surfaces of the EPPLER 485 airfoil.

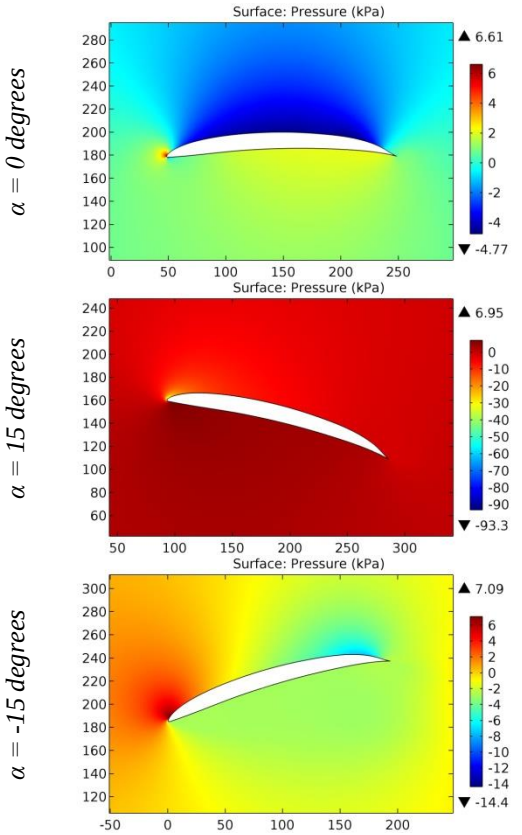


Figure 24. The pressure contours on the surfaces of the EPPLER 49 airfoil.

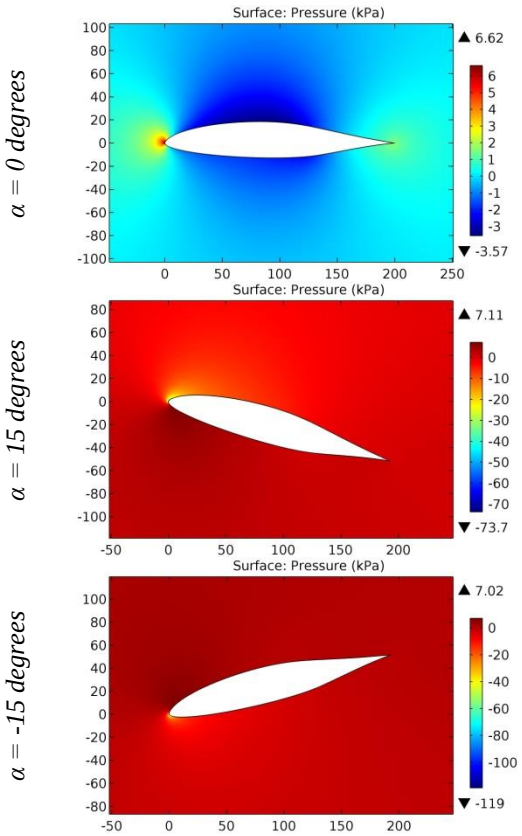


Figure 25. The pressure contours on the surfaces of the EPPLER 502 airfoil.

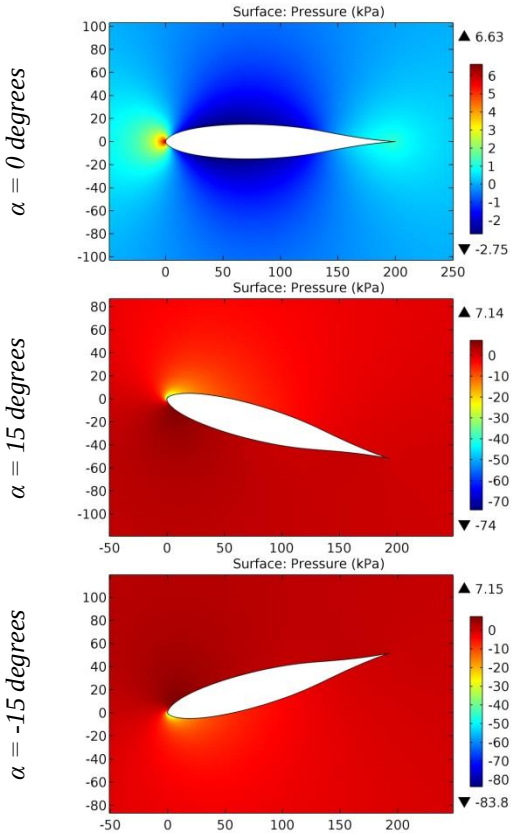


Figure 26. The pressure contours on the surfaces of the EPPLER 520 airfoil.

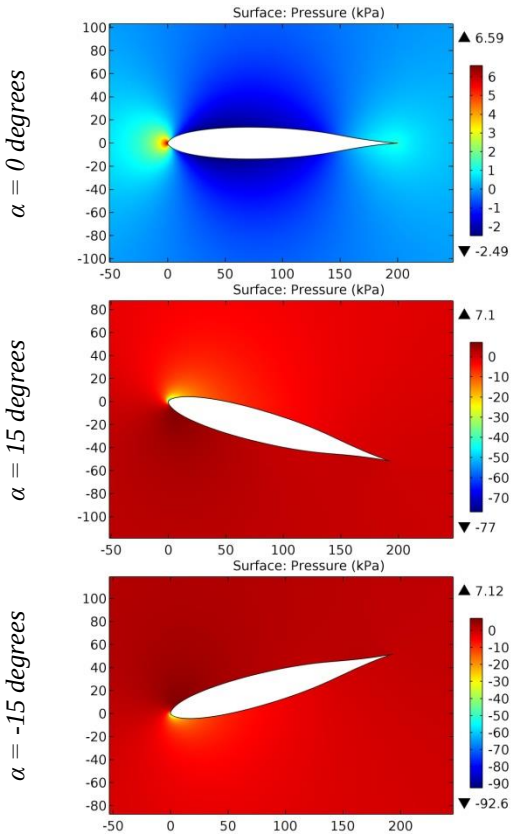


Figure 27. The pressure contours on the surfaces of the EPPLER 521 airfoil.

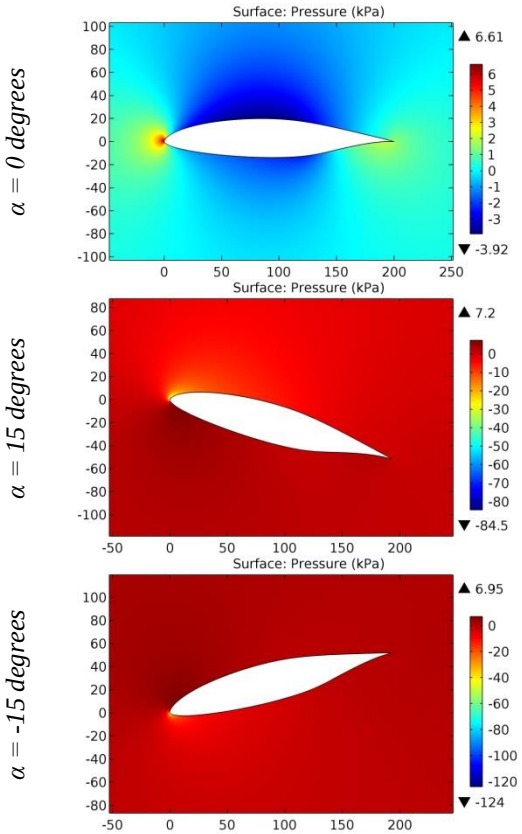


Figure 28. The pressure contours on the surfaces of the EPPLER 540 airfoil.

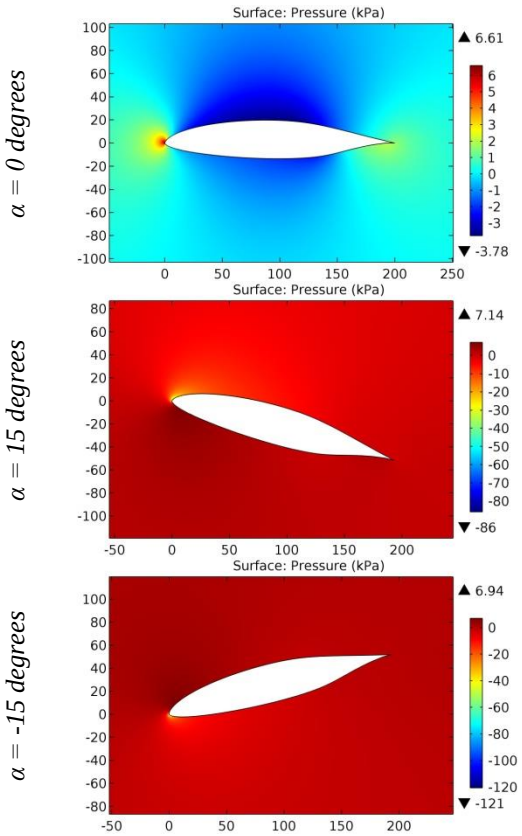


Figure 29. The pressure contours on the surfaces of the EPPLER 541 airfoil.

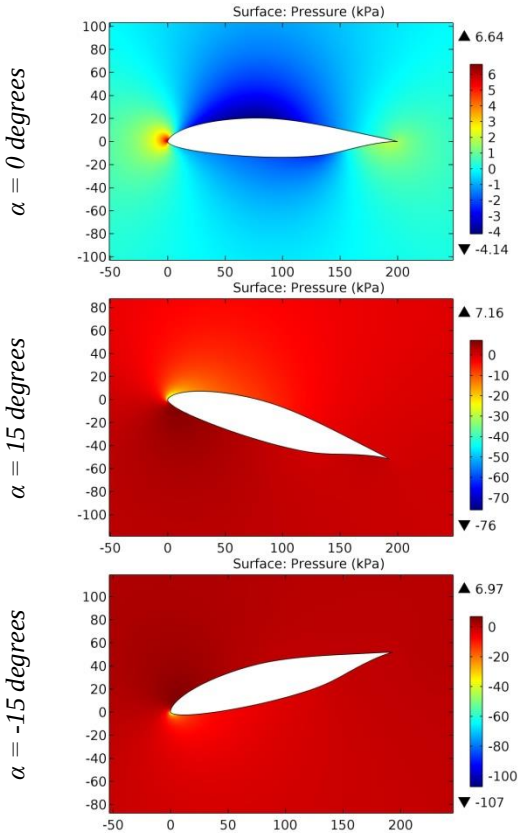


Figure 30. The pressure contours on the surfaces of the EPPLER 542 airfoil.

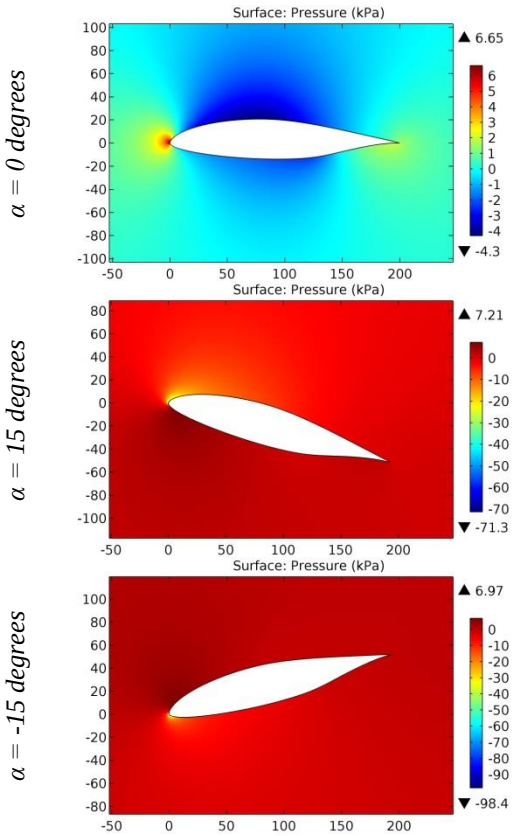


Figure 31. The pressure contours on the surfaces of the EPPLER 543 airfoil.

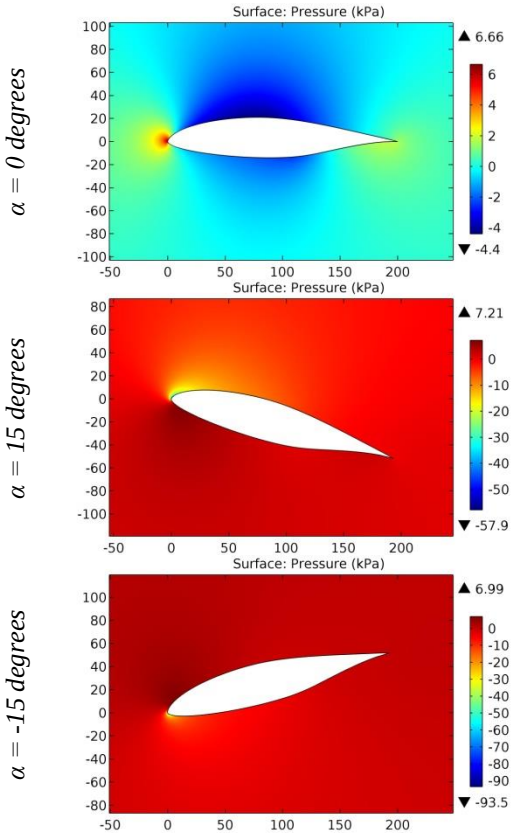


Figure 32. The pressure contours on the surfaces of the EPPLER 544 airfoil.

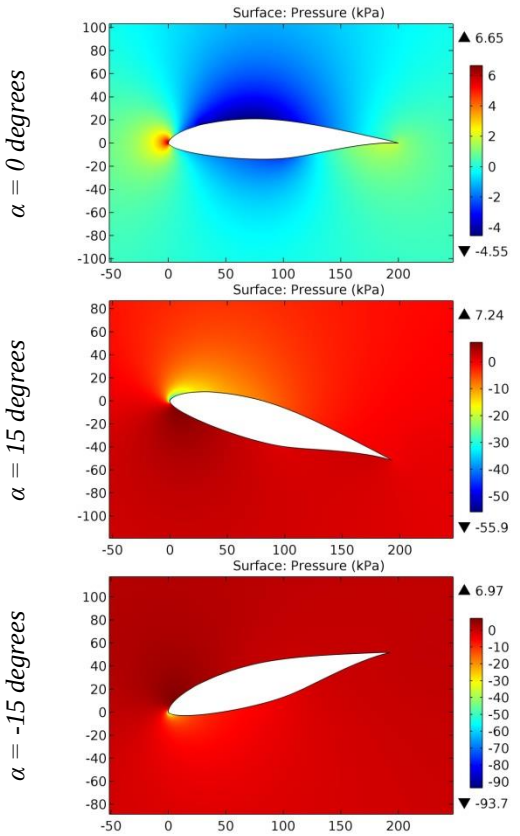


Figure 33. The pressure contours on the surfaces of the EPPLER 545 airfoil.

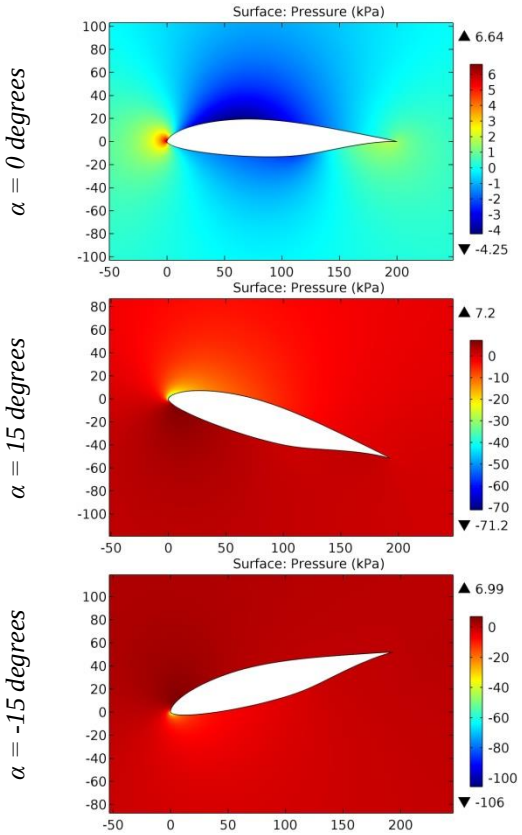


Figure 34. The pressure contours on the surfaces of the EPPLER 546 airfoil.

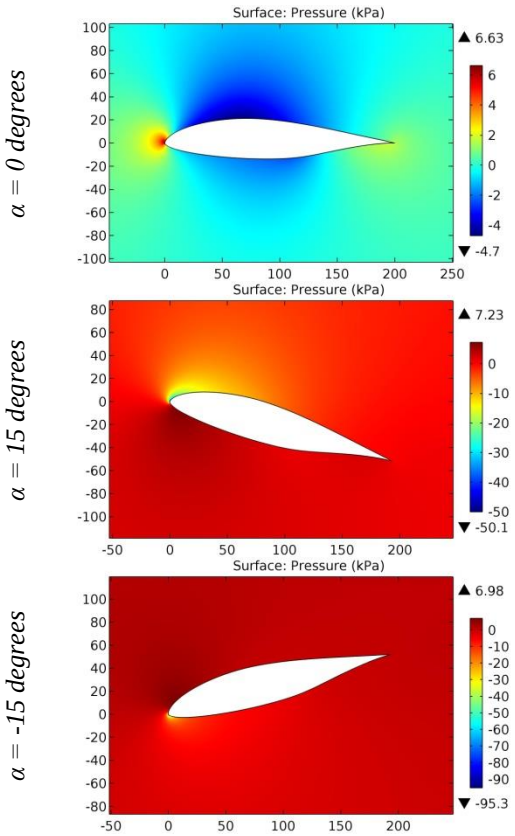


Figure 35. The pressure contours on the surfaces of the EPPLER 547 airfoil.

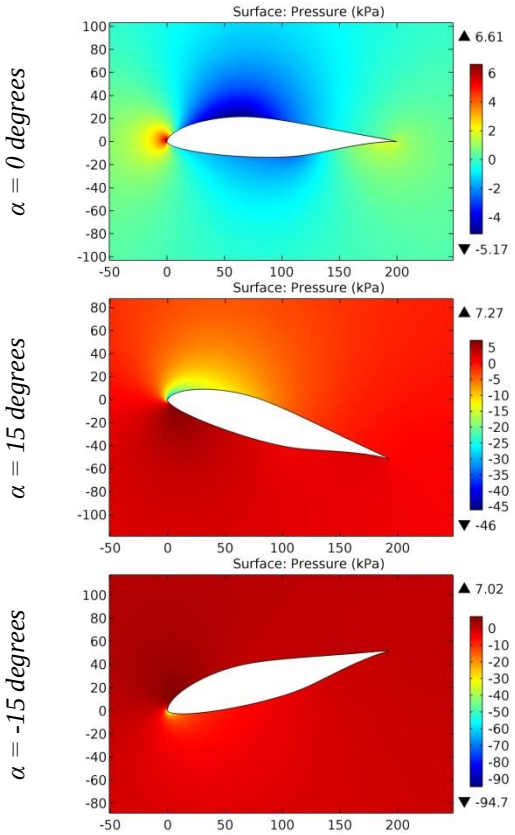


Figure 36. The pressure contours on the surfaces of the EPPLER 548 airfoil.

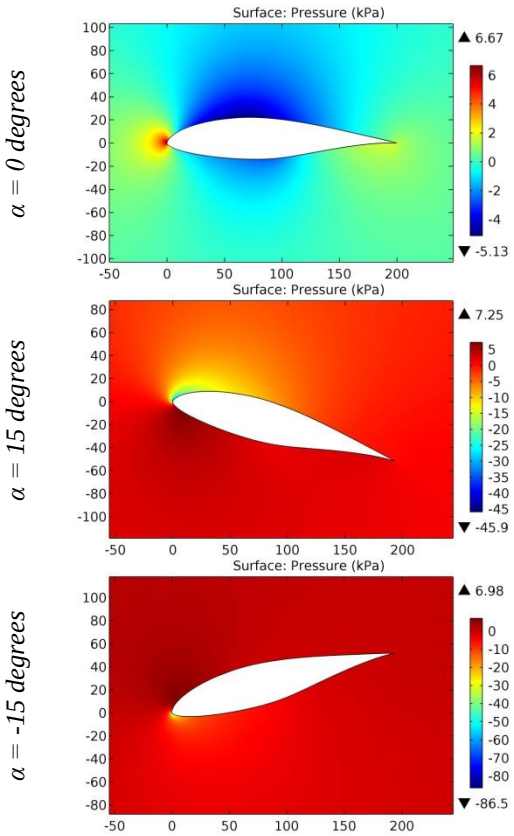


Figure 37. The pressure contours on the surfaces of the EPPLER 549 airfoil.

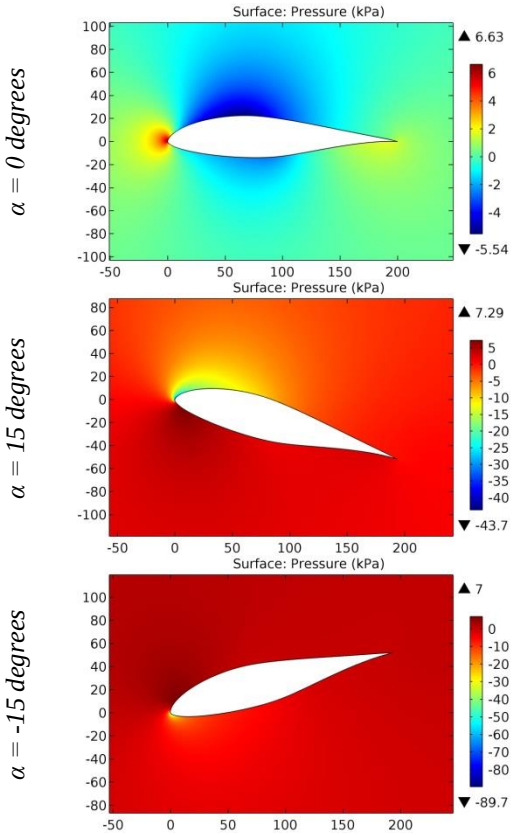


Figure 38. The pressure contours on the surfaces of the EPPLER 550 airfoil.

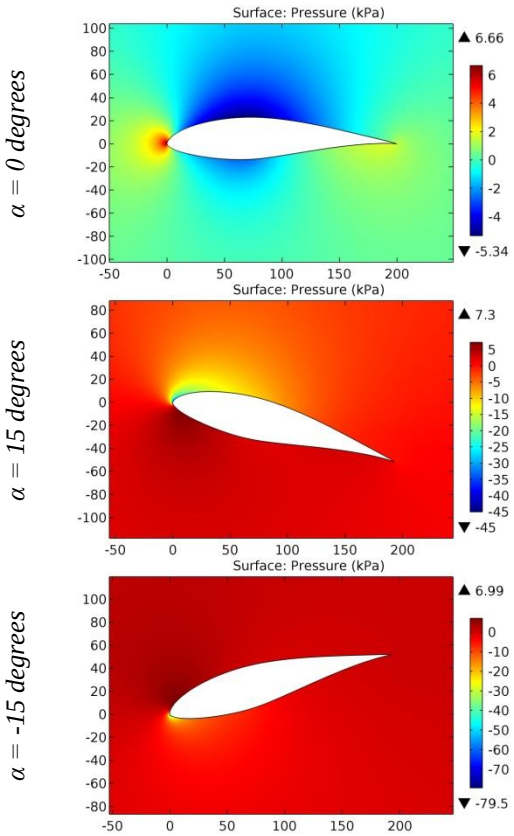


Figure 39. The pressure contours on the surfaces of the EPPLER 551 airfoil.

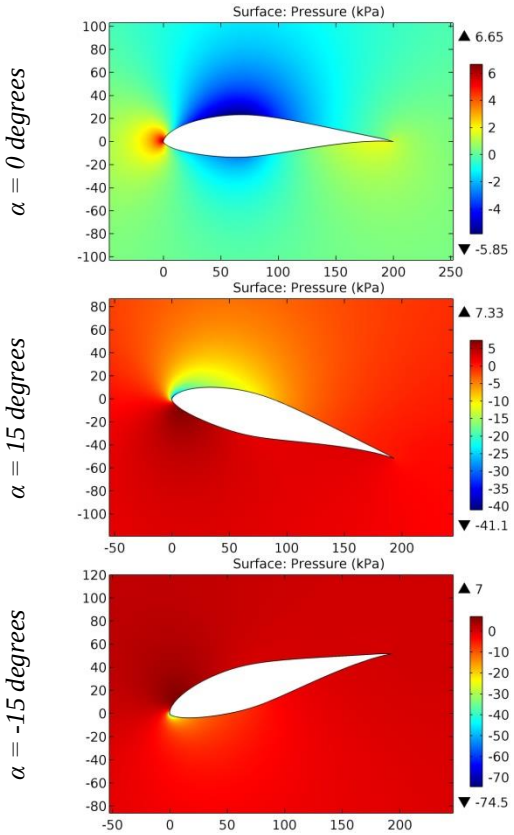


Figure 40. The pressure contours on the surfaces of the EPPLER 552 airfoil.

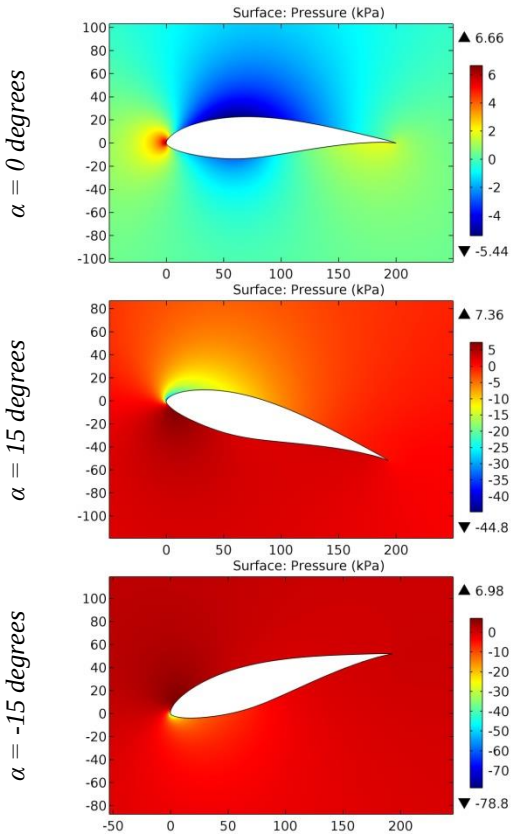


Figure 41. The pressure contours on the surfaces of the EPPLER 553 airfoil.

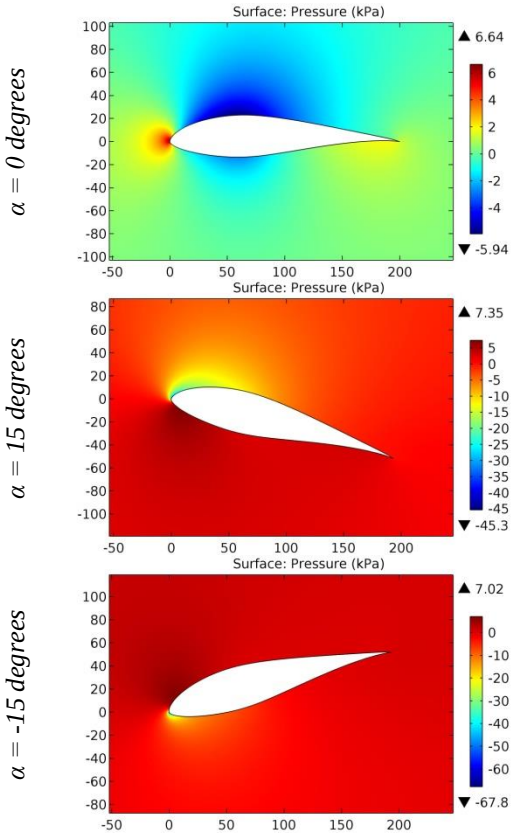


Figure 42. The pressure contours on the surfaces of the EPPLER 554 airfoil.

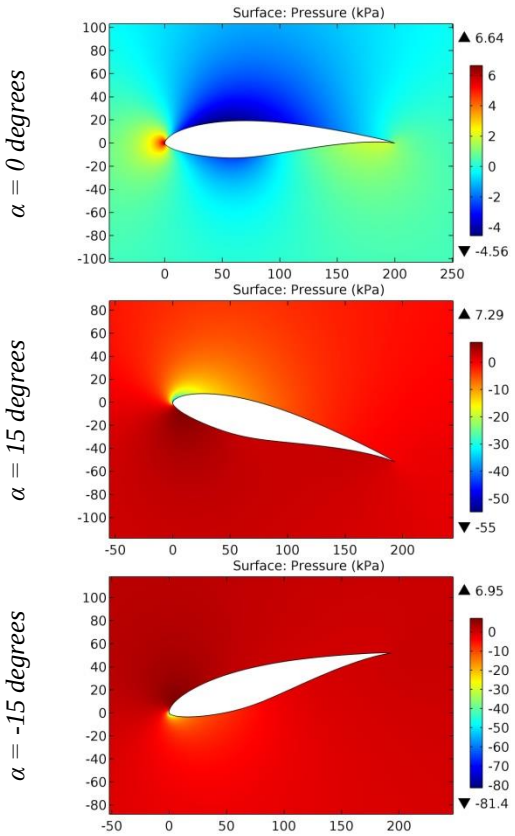


Figure 43. The pressure contours on the surfaces of the EPPLER 555 airfoil.

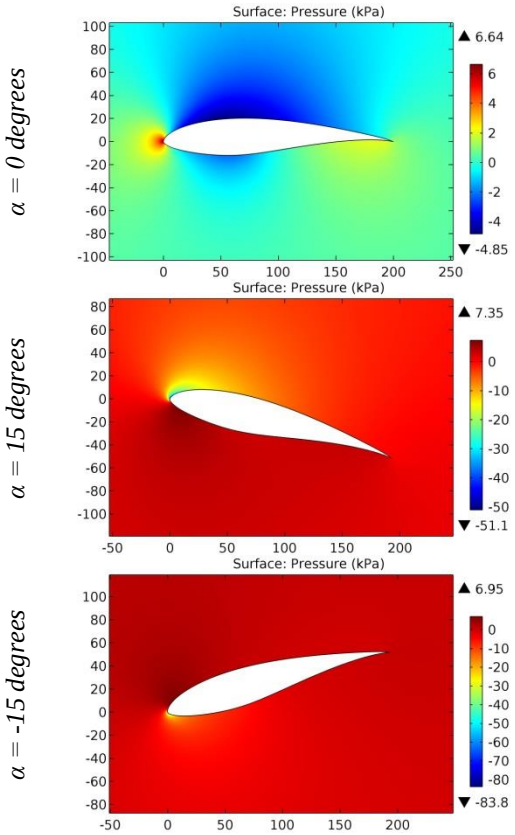


Figure 44. The pressure contours on the surfaces of the EPPLER 556 airfoil.

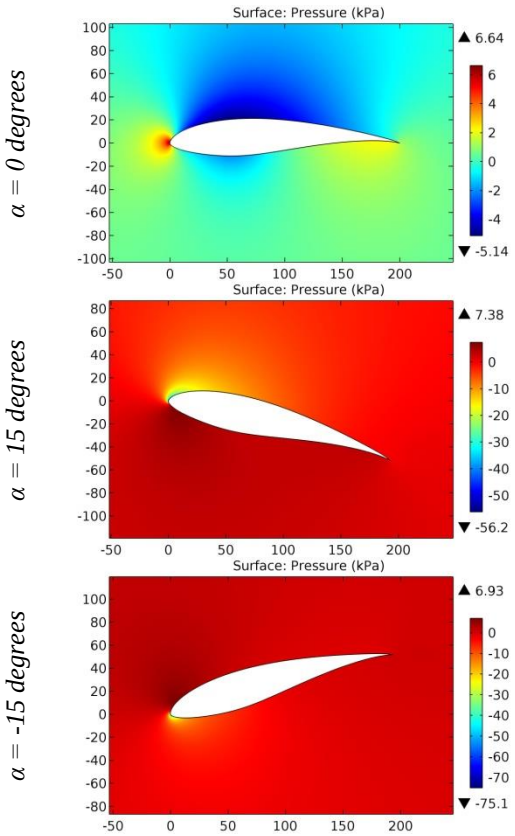


Figure 45. The pressure contours on the surfaces of the EPPLER 557 airfoil.

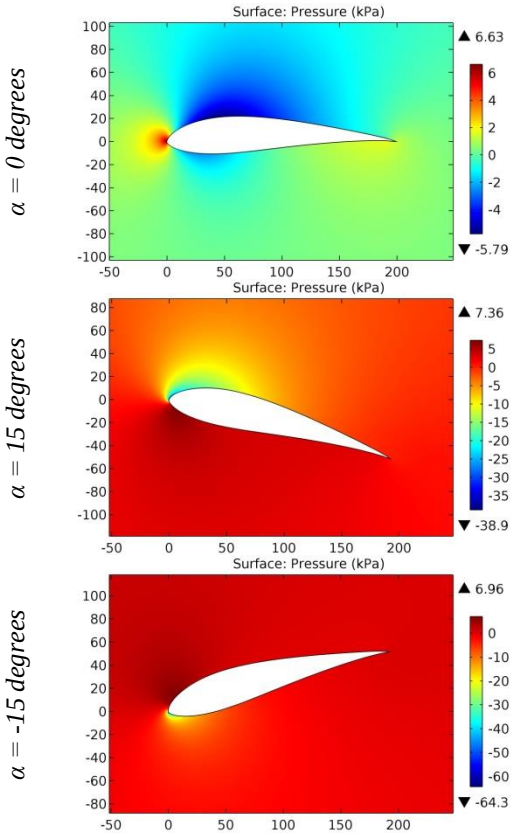


Figure 46. The pressure contours on the surfaces of the EPPLER 558 airfoil.

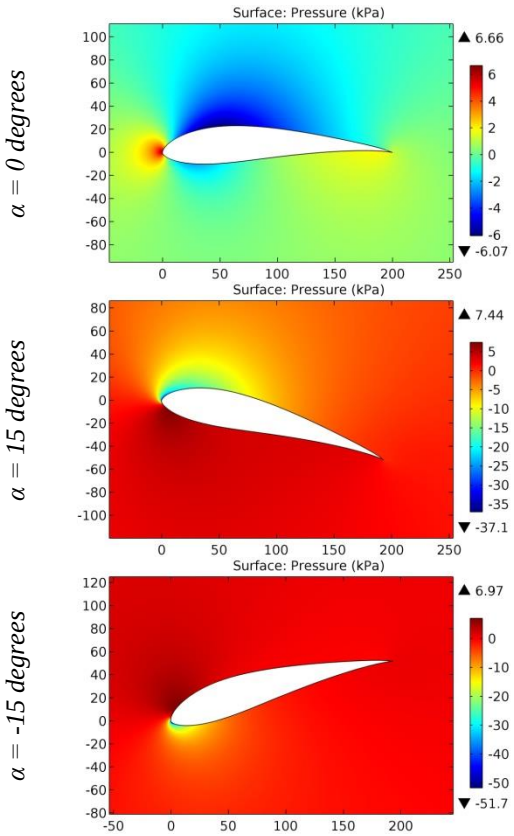


Figure 47. The pressure contours on the surfaces of the EPPLER 559 airfoil.

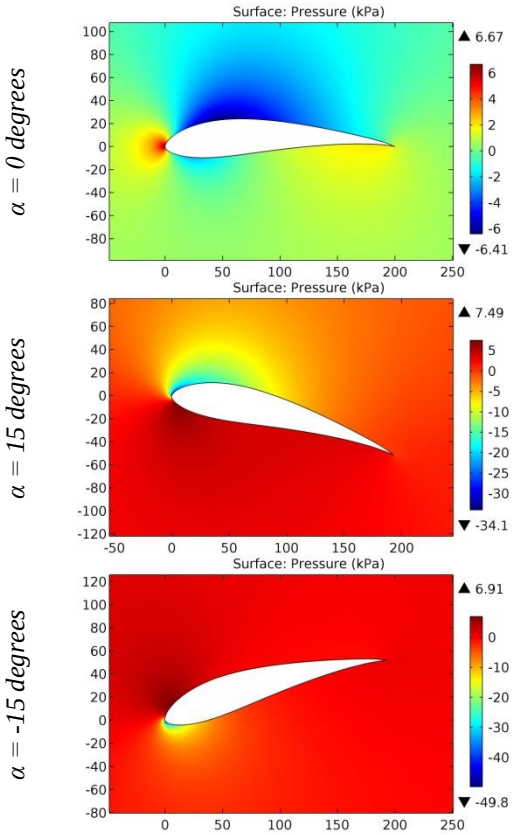


Figure 48. The pressure contours on the surfaces of the EPPLER 560 airfoil.

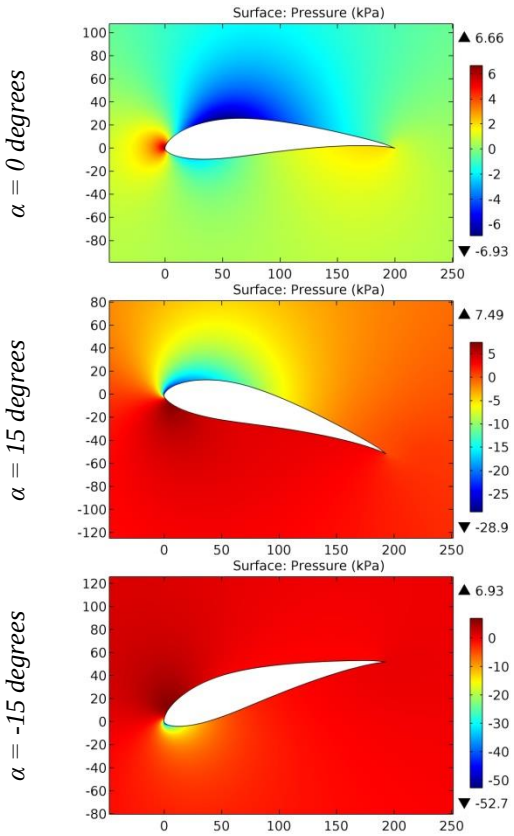


Figure 49. The pressure contours on the surfaces of the EPPLER 561 airfoil.

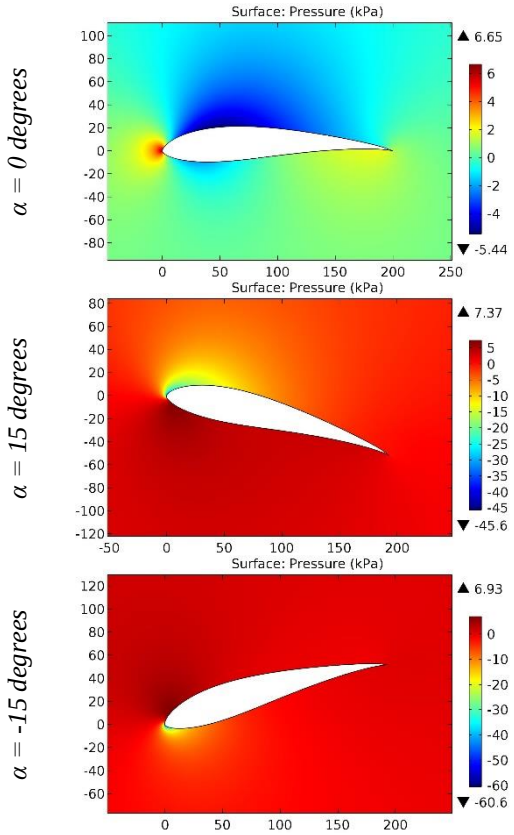


Figure 50. The pressure contours on the surfaces of the EPPLER 562 airfoil.

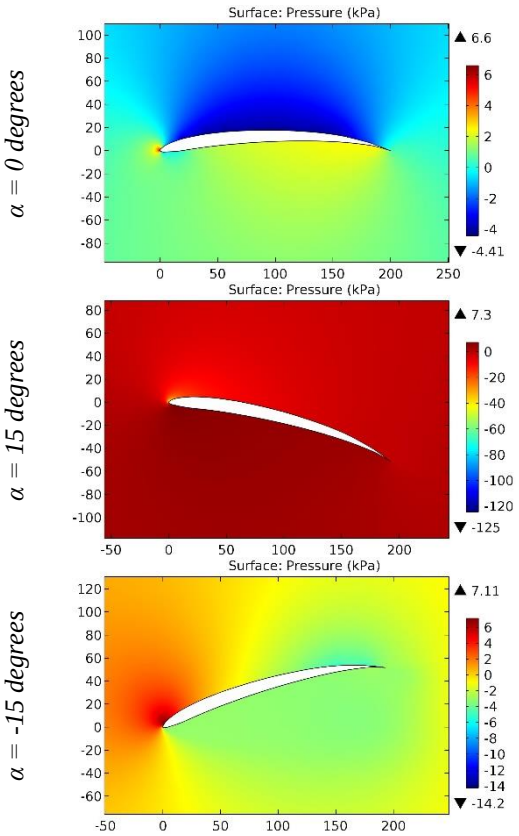


Figure 51. The pressure contours on the surfaces of the EPPLER 58 airfoil.

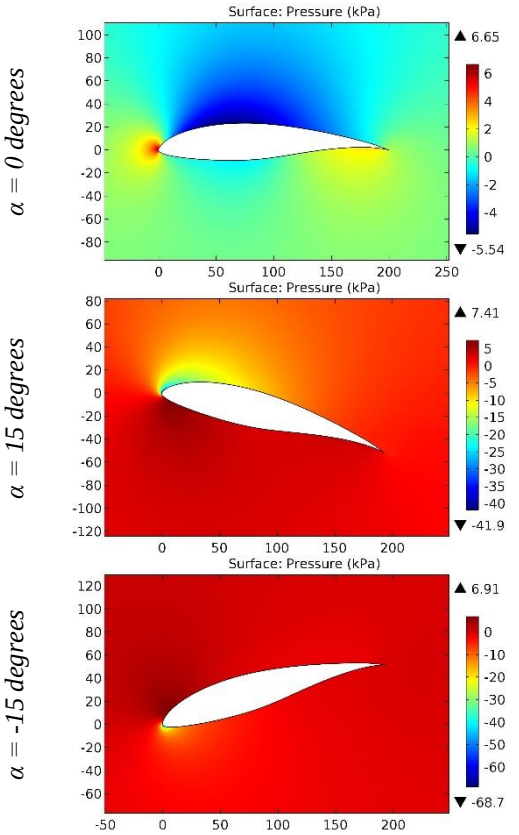


Figure 52. The pressure contours on the surfaces of the EPPLER 580 airfoil.

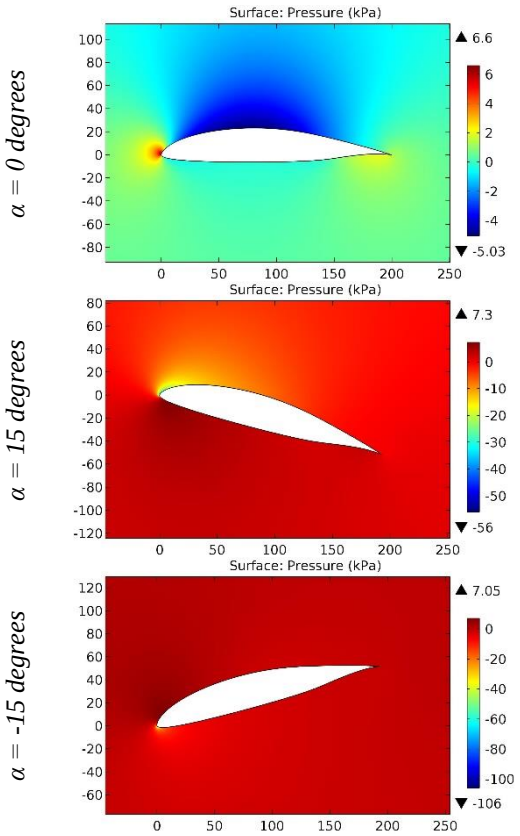


Figure 53. The pressure contours on the surfaces of the EPPLER 582 airfoil.

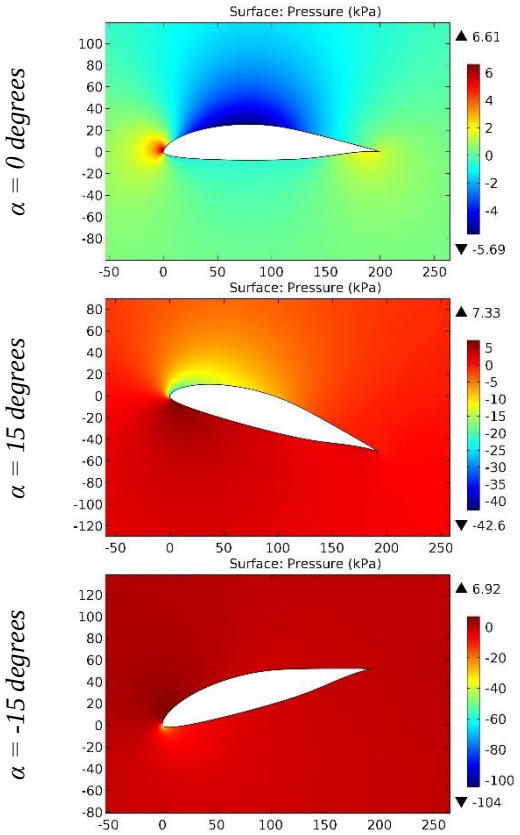


Figure 54. The pressure contours on the surfaces of the EPPLER 583 airfoil.

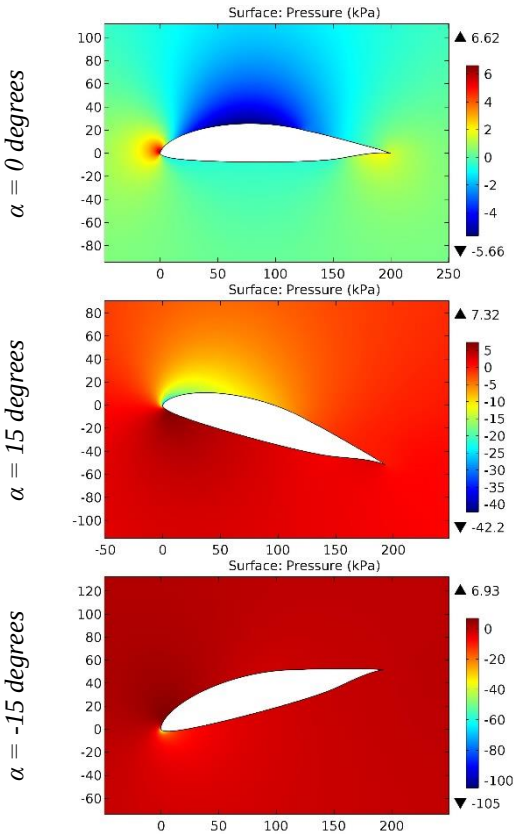


Figure 55. The pressure contours on the surfaces of the EPPLER 584 airfoil.

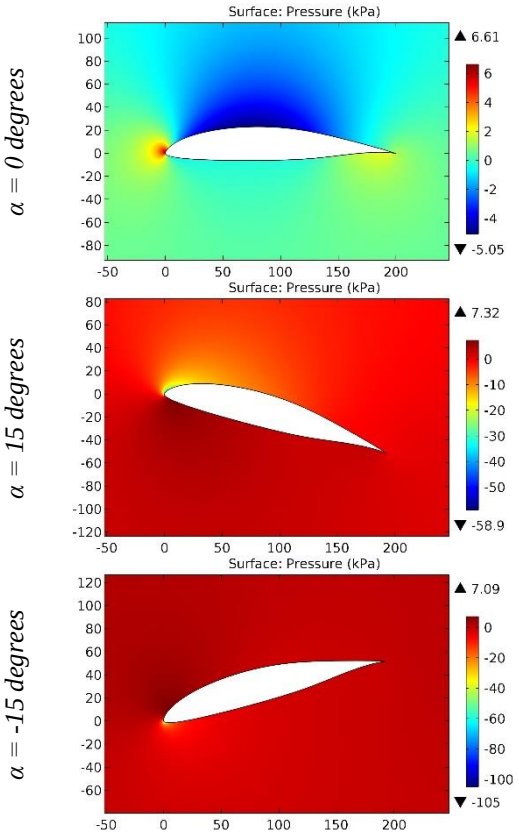


Figure 56. The pressure contours on the surfaces of the EPPLER 585 airfoil.

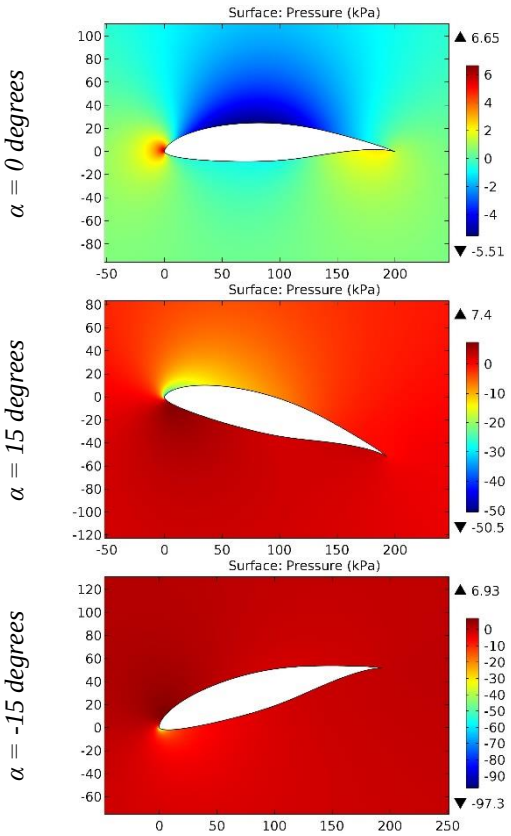


Figure 57. The pressure contours on the surfaces of the EPPLER 587 airfoil.

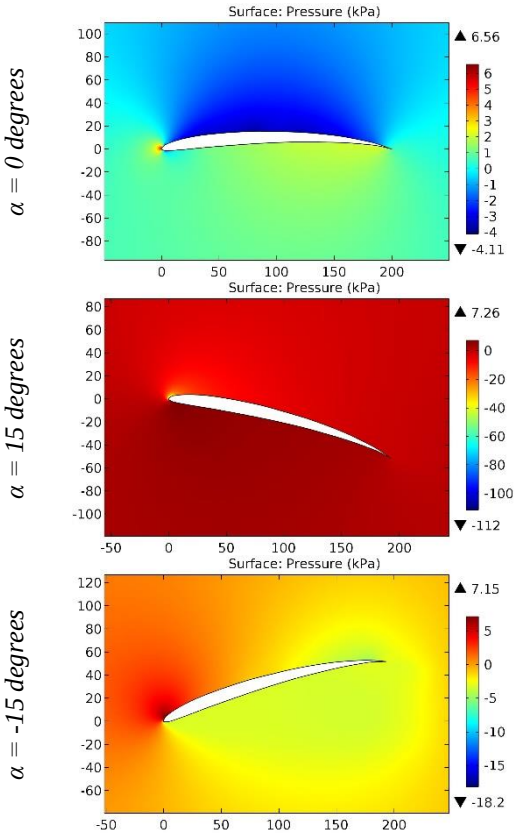


Figure 58. The pressure contours on the surfaces of the EPPLER 59 airfoil.

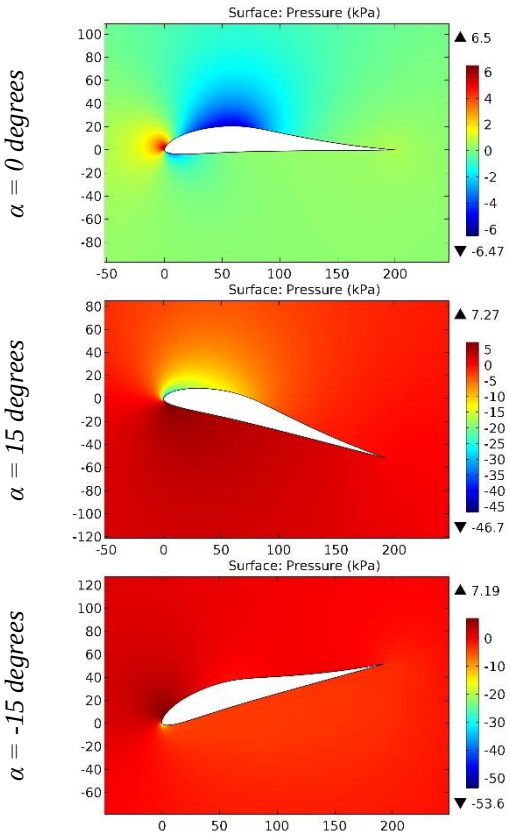


Figure 59. The pressure contours on the surfaces of the EPPLER 593 airfoil.

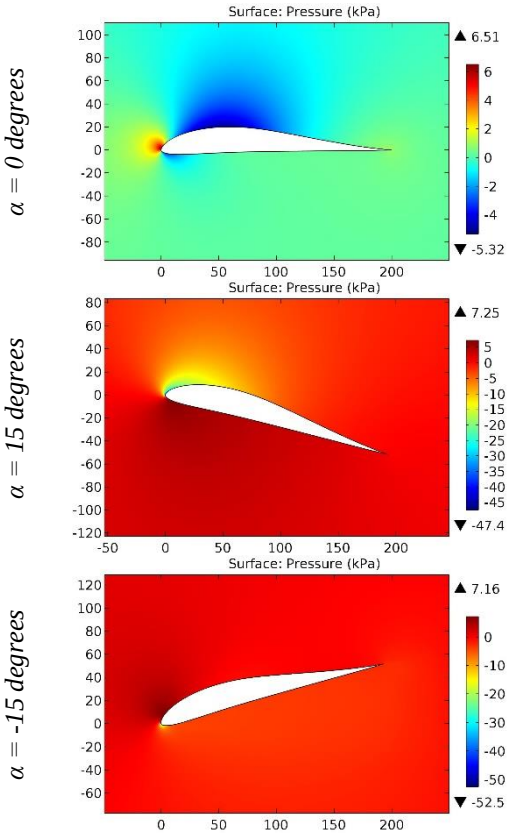


Figure 60. The pressure contours on the surfaces of the EPPLER 598 airfoil.

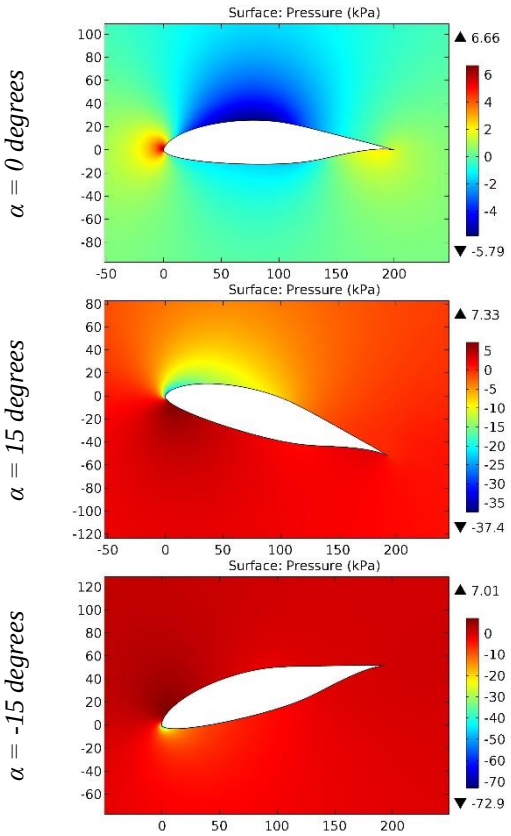


Figure 61. The pressure contours on the surfaces of the EPPLER 603 airfoil.

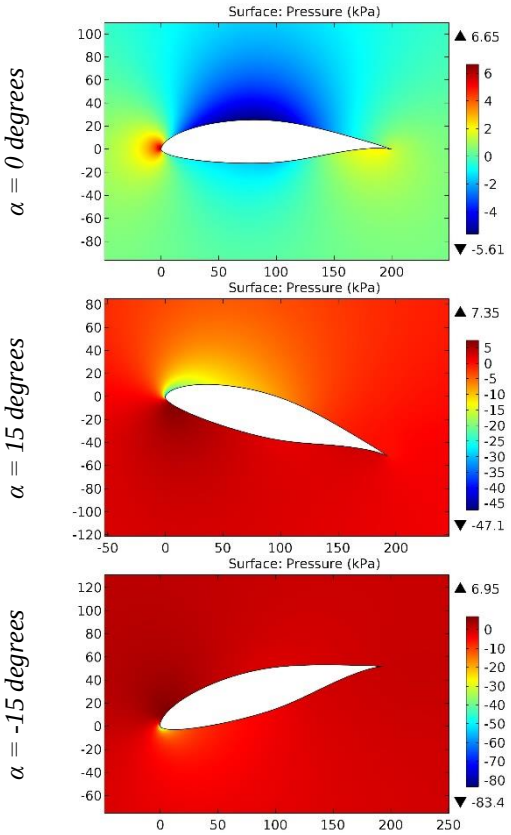


Figure 62. The pressure contours on the surfaces of the EPPLER 604 airfoil.

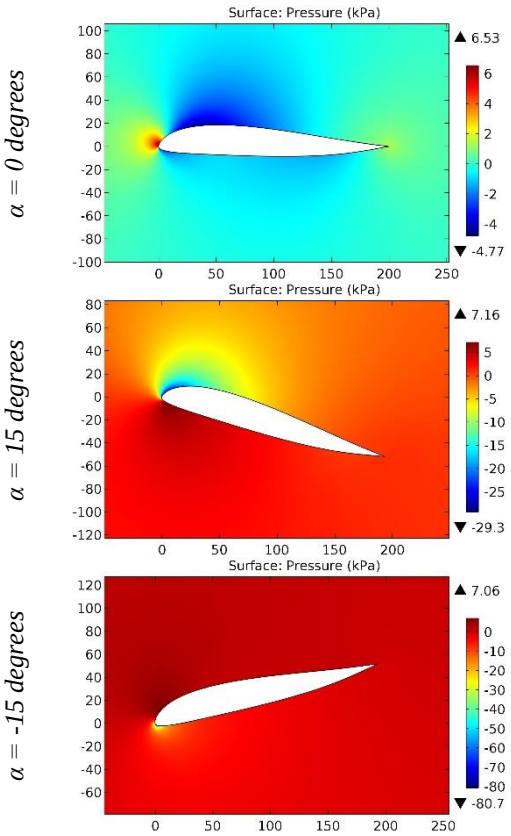


Figure 63. The pressure contours on the surfaces of the EPPLER 625 airfoil.

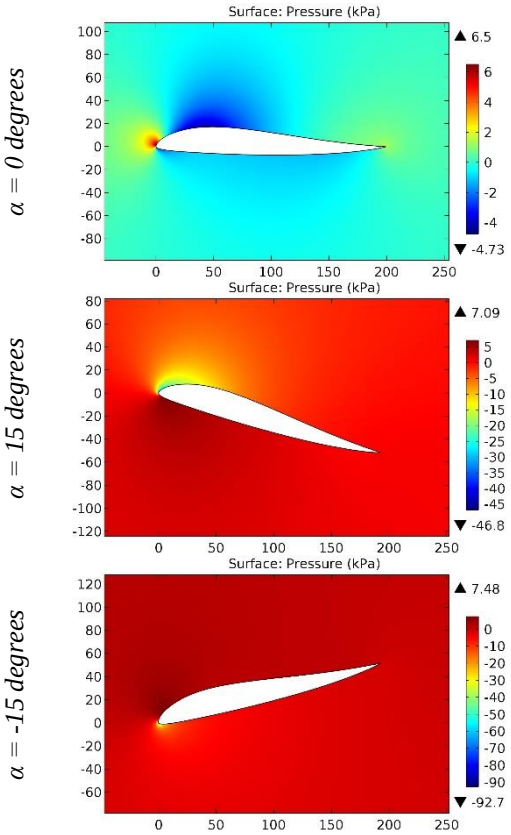


Figure 64. The pressure contours on the surfaces of the EPPLER 635 airfoil.

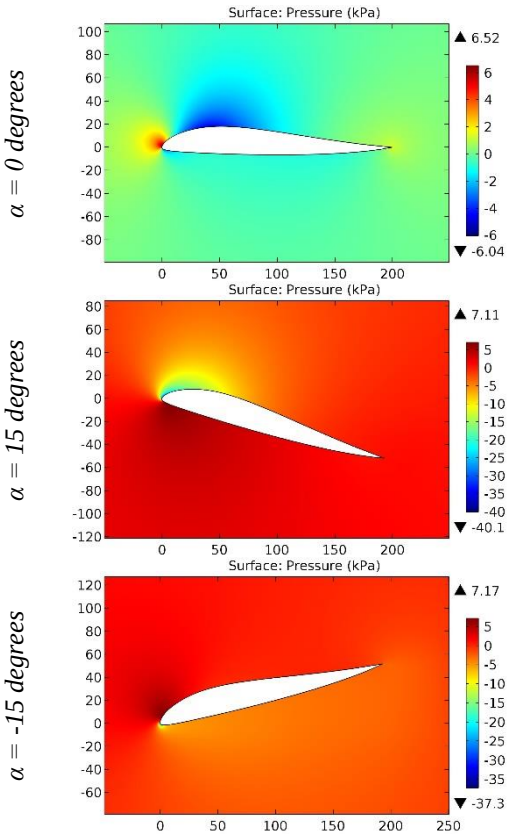


Figure 65. The pressure contours on the surfaces of the EPPLER 636 airfoil.

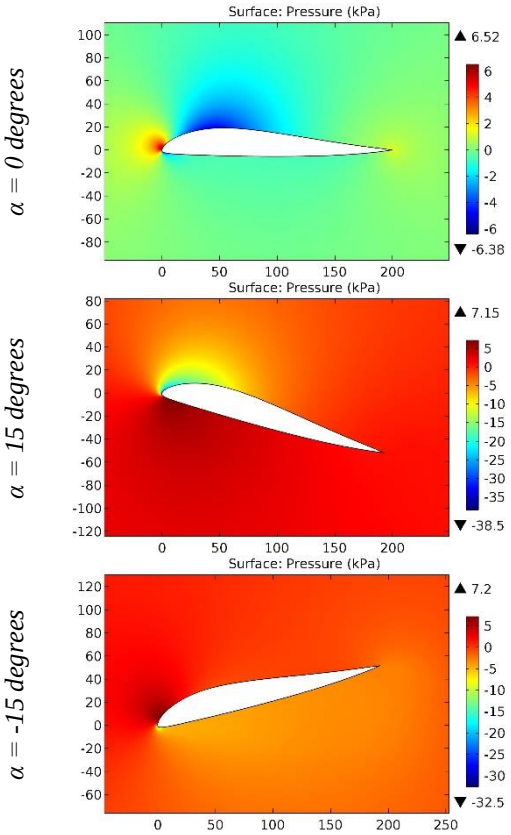


Figure 66. The pressure contours on the surfaces of the EPPLER 637 airfoil.

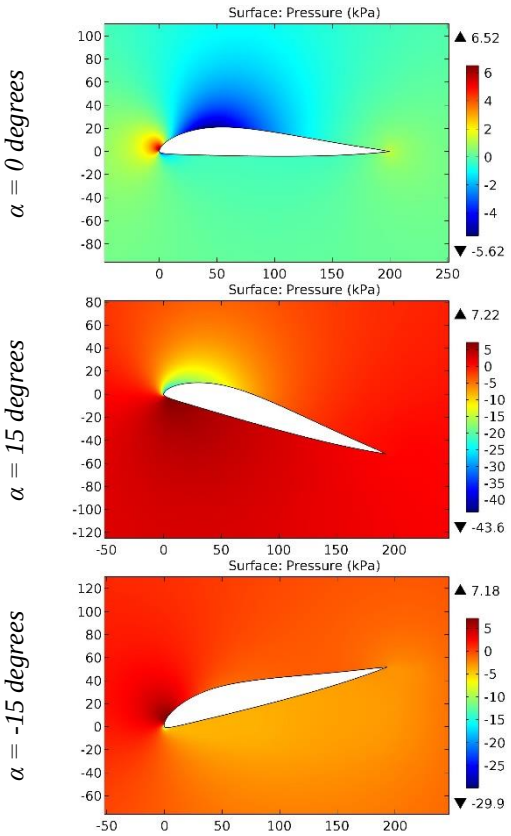


Figure 67. The pressure contours on the surfaces of the EPPLER 638 airfoil.

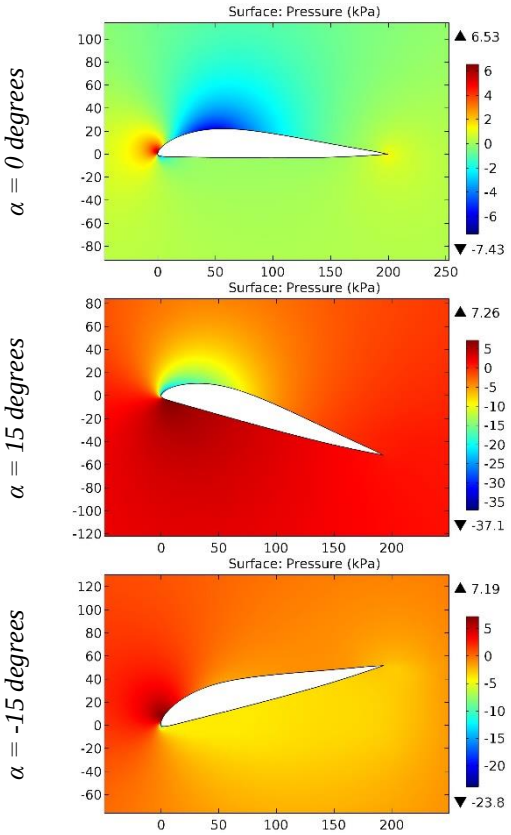


Figure 68. The pressure contours on the surfaces of the EPPLER 639 airfoil.

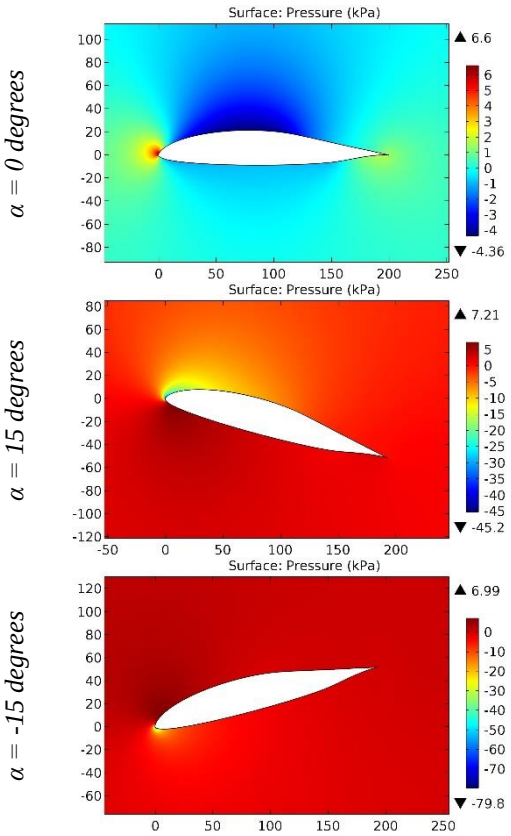


Figure 69. The pressure contours on the surfaces of the EPPLER 642 airfoil.

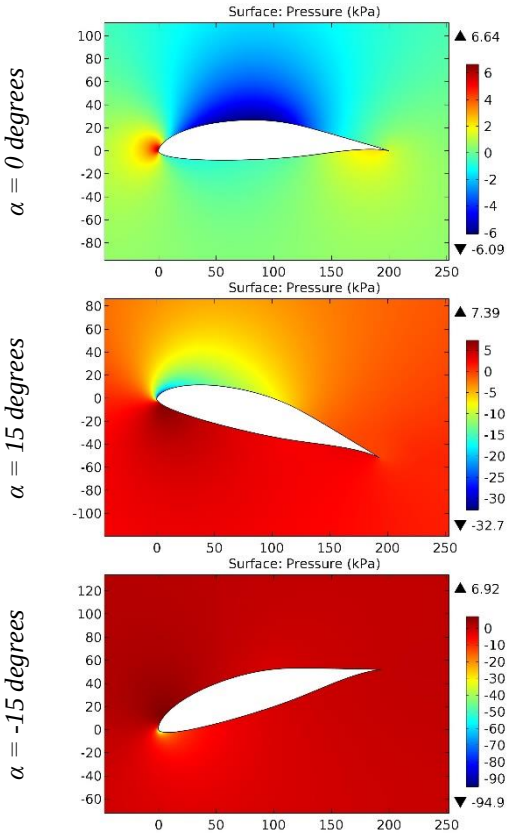


Figure 70. The pressure contours on the surfaces of the EPPLER 654 airfoil.

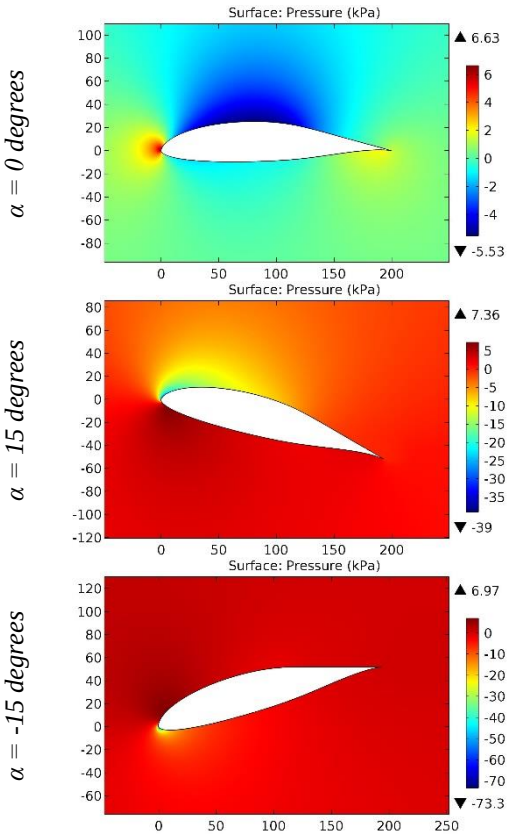


Figure 71. The pressure contours on the surfaces of the EPPLER 655 airfoil.

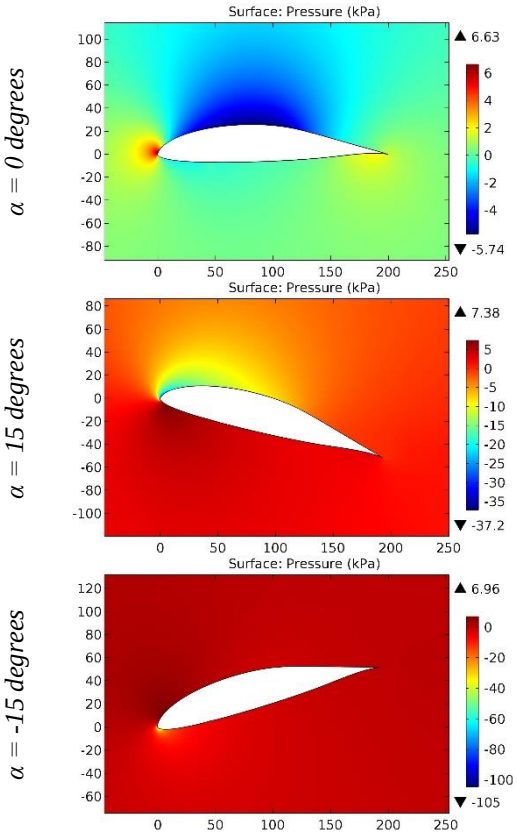


Figure 72. The pressure contours on the surfaces of the EPPLER 656 airfoil.

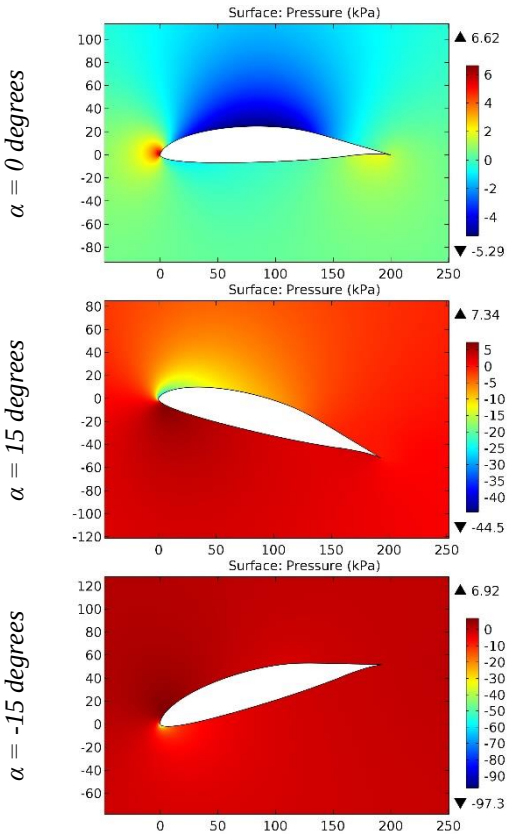


Figure 73. The pressure contours on the surfaces of the EPPLER 657 airfoil.

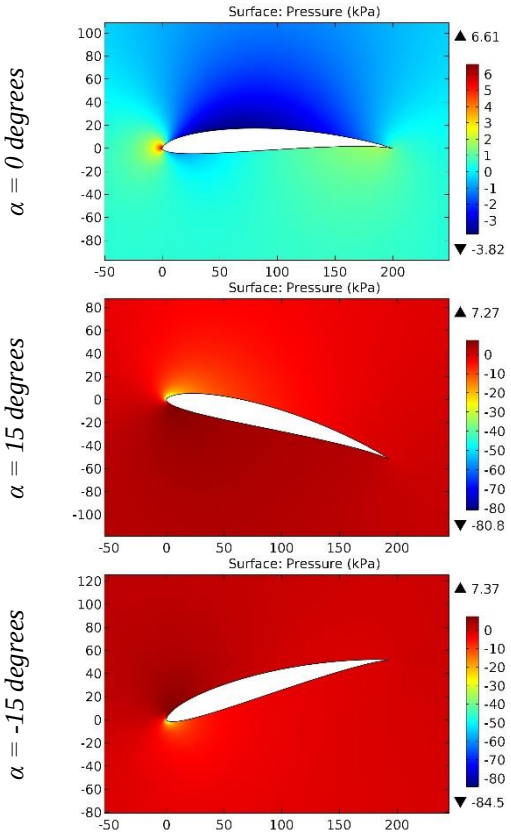


Figure 74. The pressure contours on the surfaces of the EPPLER 66 airfoil.

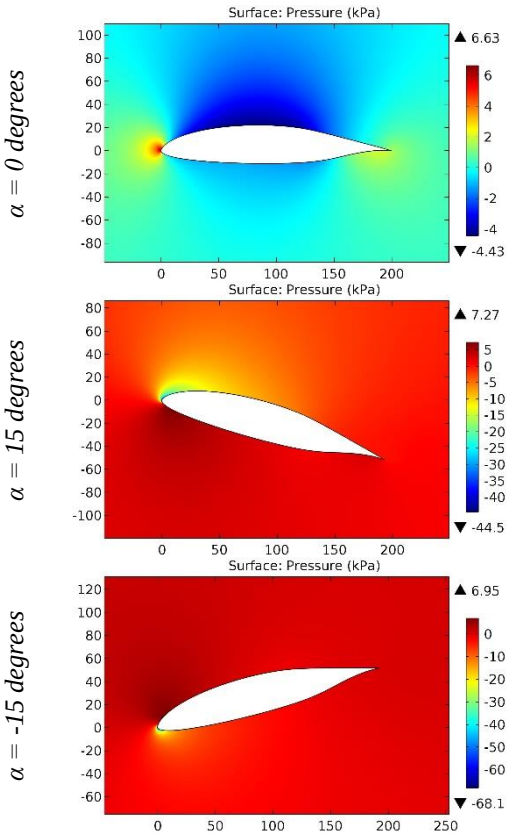


Figure 75. The pressure contours on the surfaces of the EPPLER 664 airfoil.

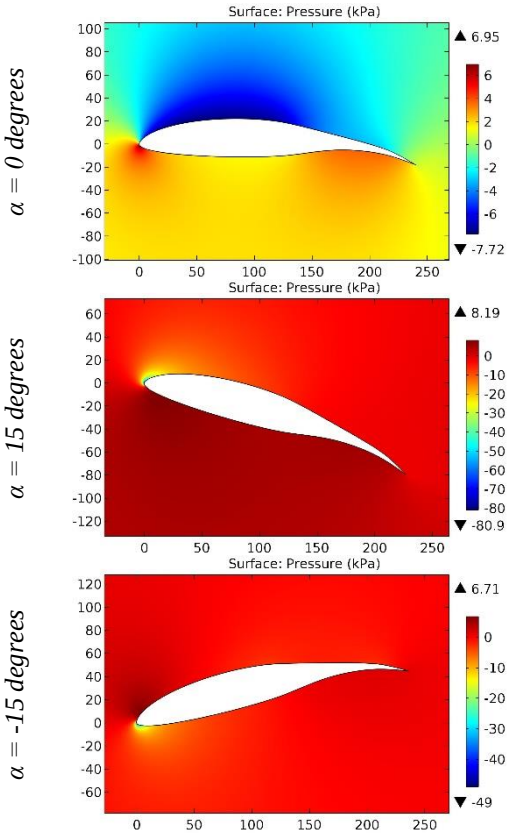


Figure 76. The pressure contours on the surfaces of the EPPLER 664 (EXTENDED) airfoil.

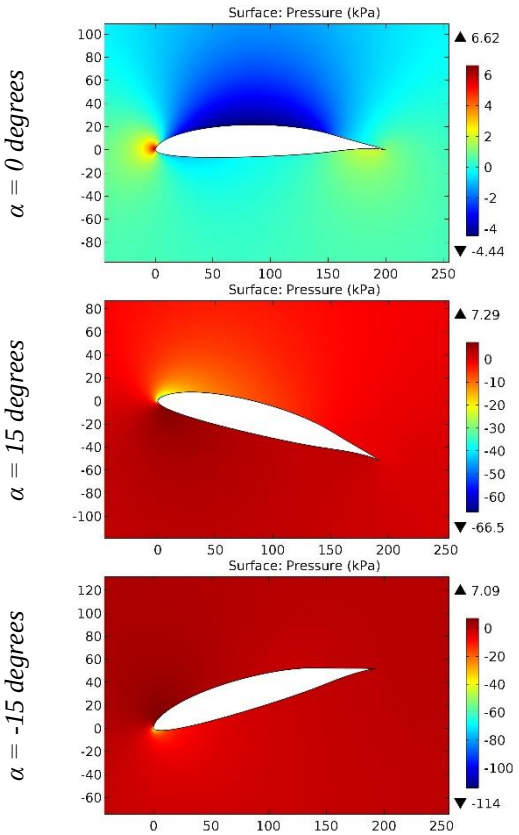


Figure 77. The pressure contours on the surfaces of the EPPLER 668 airfoil.

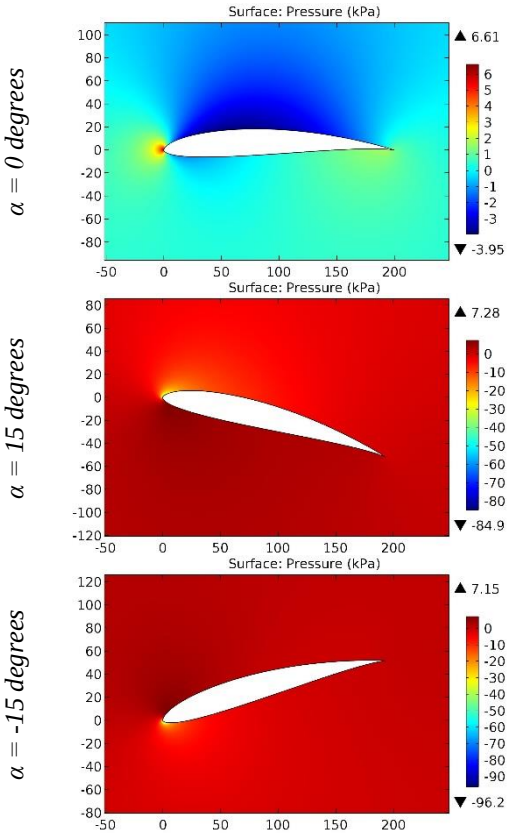


Figure 78. The pressure contours on the surfaces of the EPPLER 67 airfoil.

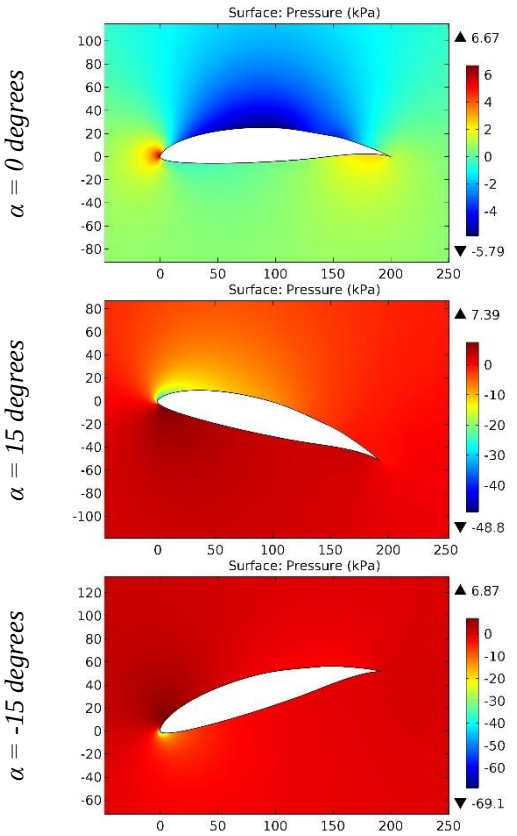


Figure 79. The pressure contours on the surfaces of the EPPLER 678 airfoil.

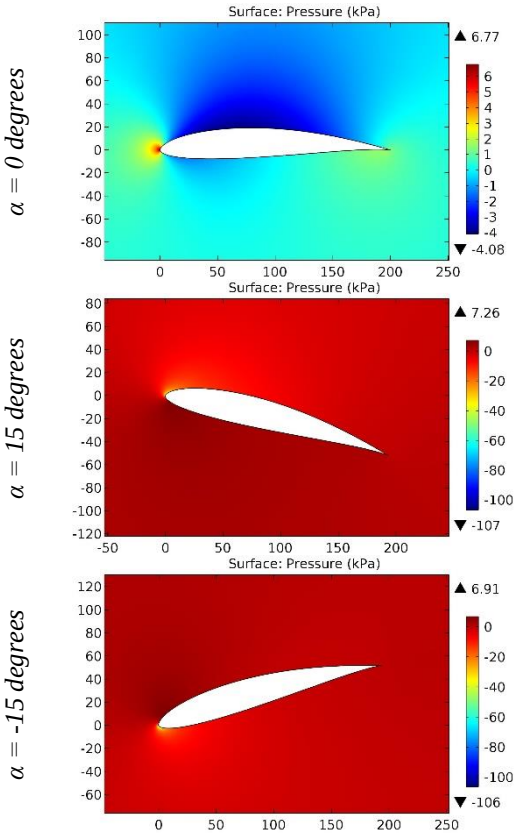


Figure 80. The pressure contours on the surfaces of the EPPLER 68 airfoil.

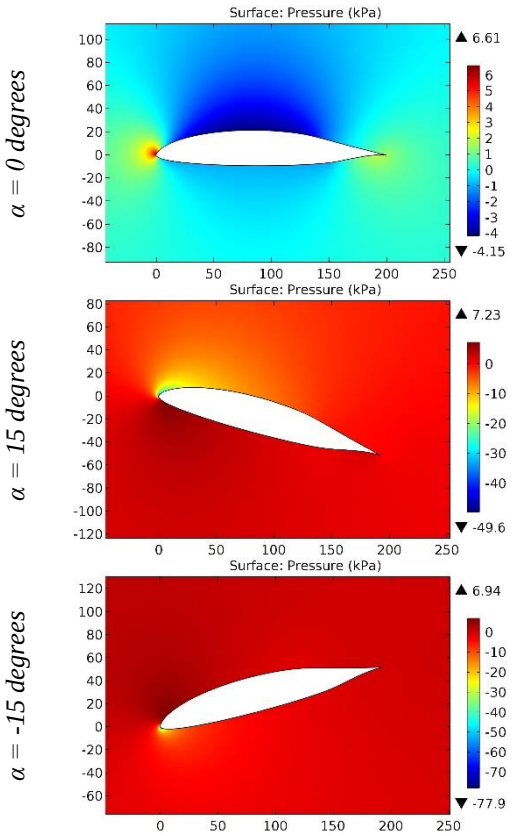


Figure 81. The pressure contours on the surfaces of the EPPLER 682 airfoil.

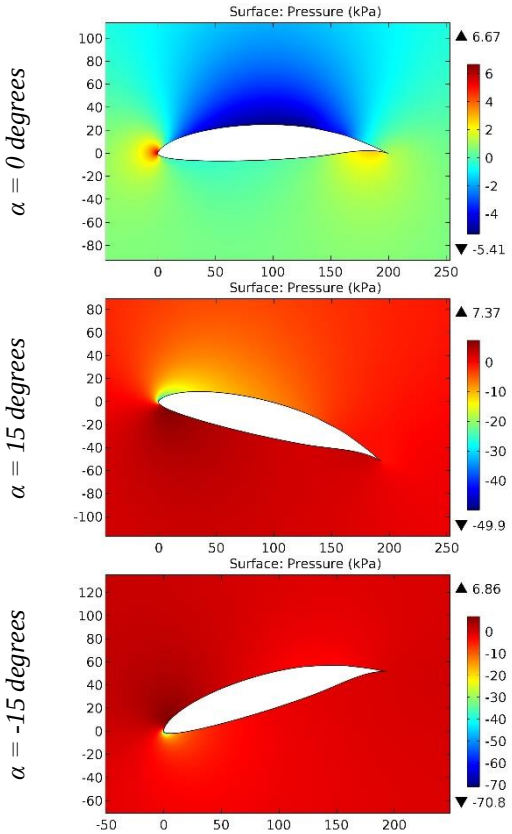


Figure 82. The pressure contours on the surfaces of the EPPLER 694 airfoil.

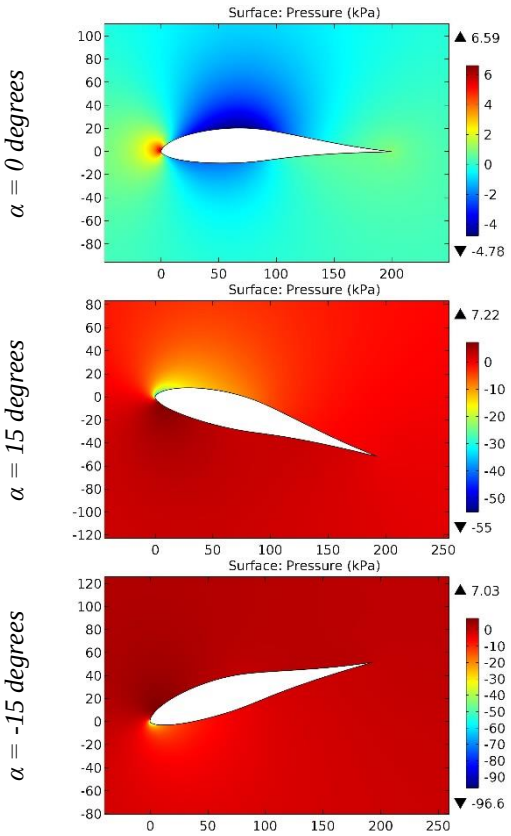


Figure 83. The pressure contours on the surfaces of the EPPLER 715 airfoil.

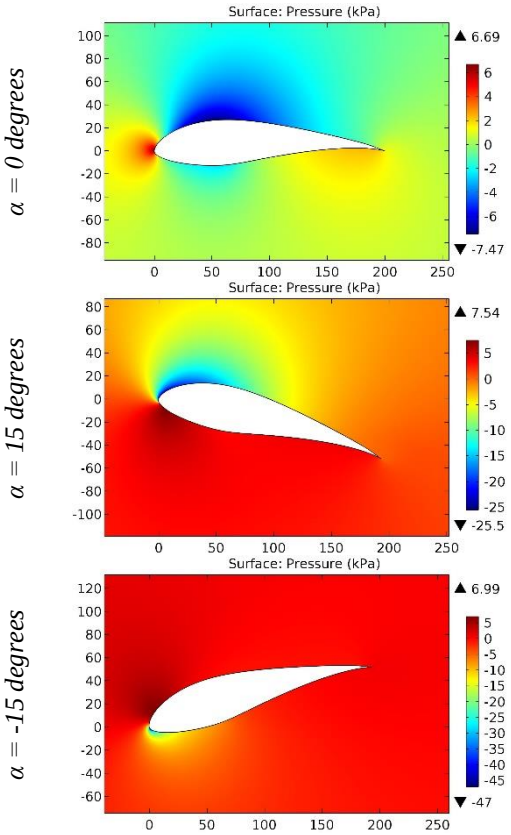


Figure 84. The pressure contours on the surfaces of the EPPLER 748 airfoil.

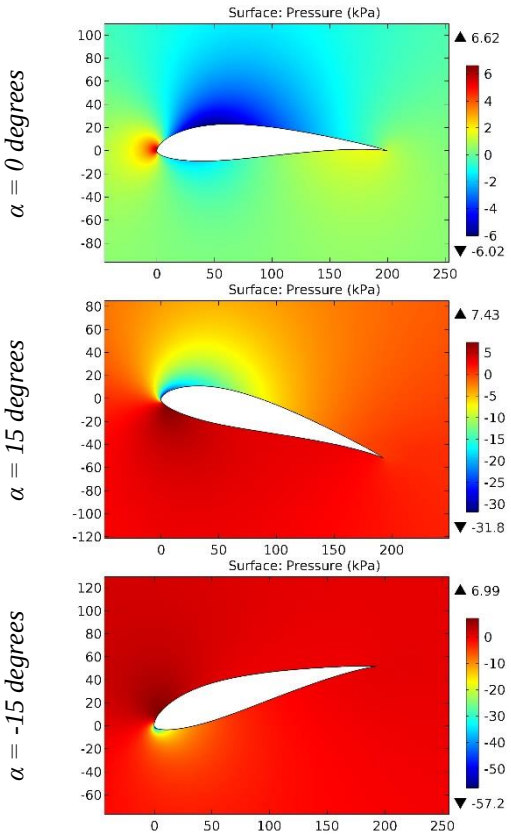


Figure 85. The pressure contours on the surfaces of the EPPLER 793 airfoil.

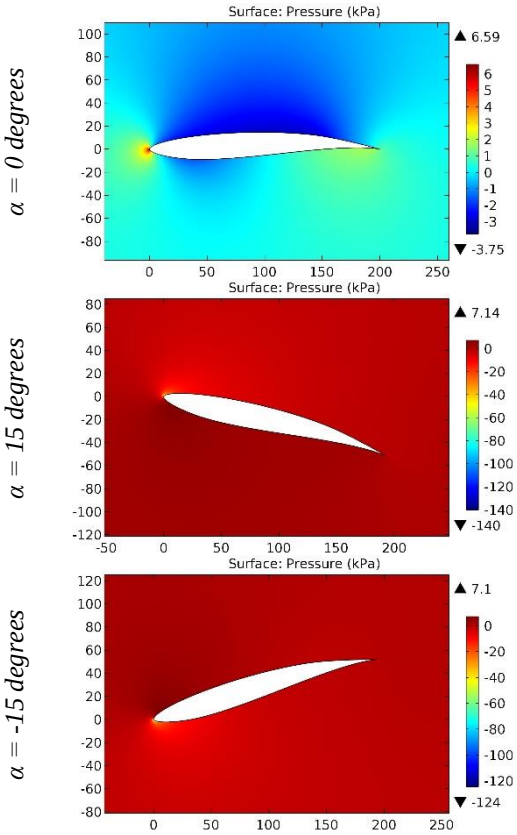


Figure 86. The pressure contours on the surfaces of the EPPLER 817 HYDROFOIL.

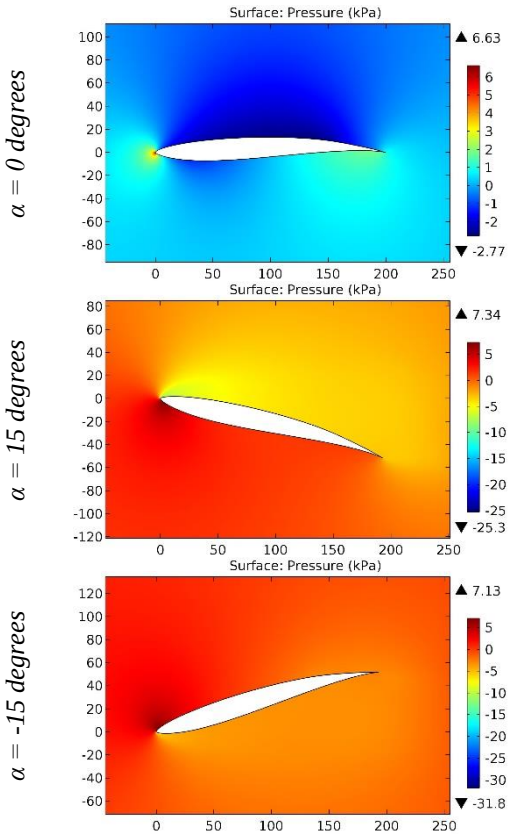


Figure 87. The pressure contours on the surfaces of the EPPLER 818 HYDROFOIL.

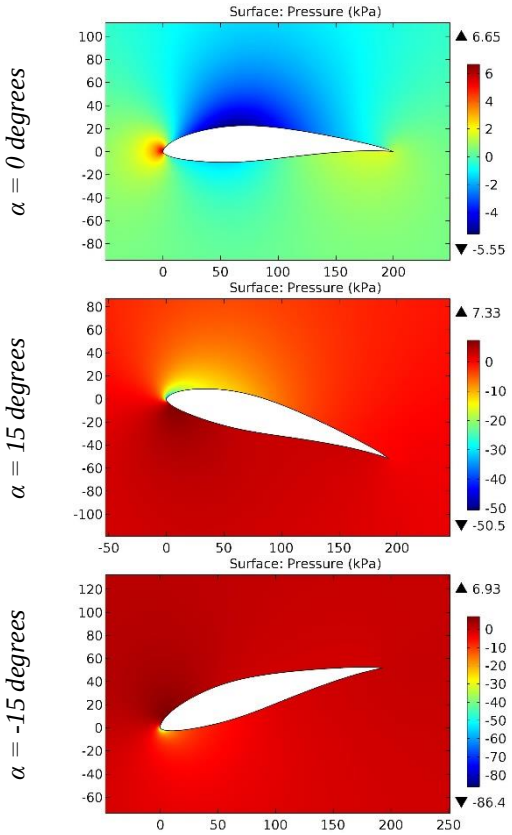


Figure 88. The pressure contours on the surfaces of the EPPLER 855 airfoil.

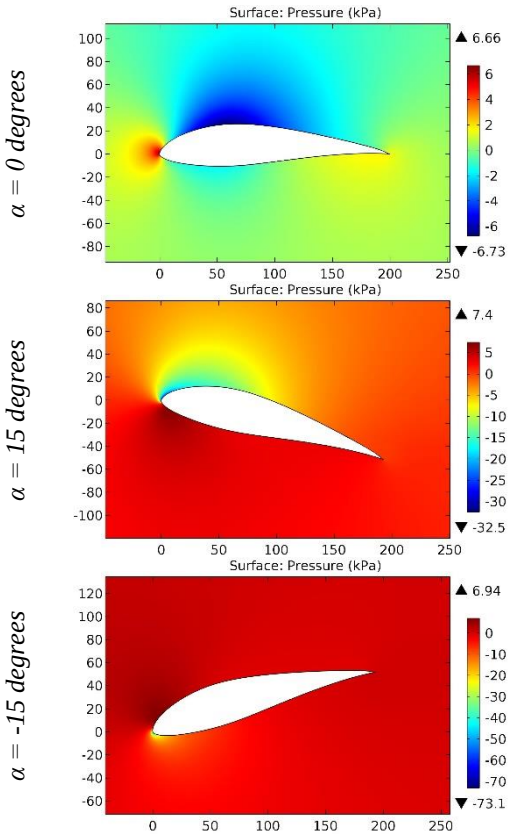


Figure 89. The pressure contours on the surfaces of the EPPLER 856 airfoil.

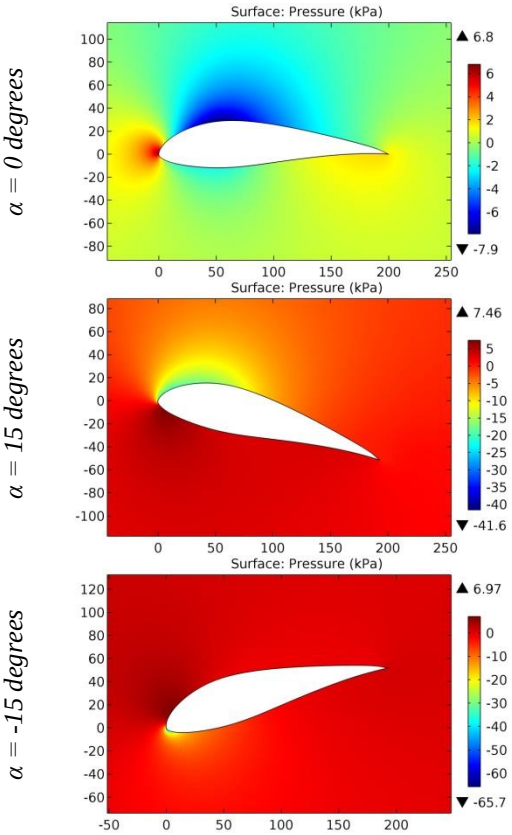


Figure 90. The pressure contours on the surfaces of the EPPLER 857 airfoil.

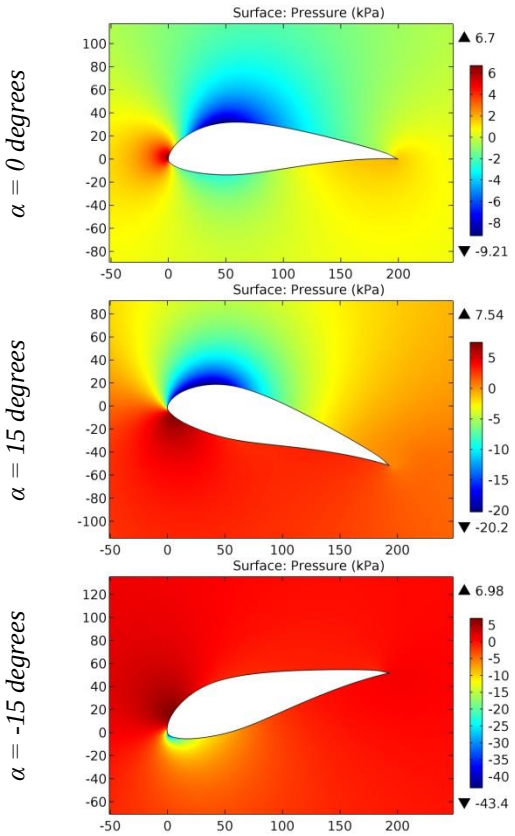


Figure 91. The pressure contours on the surfaces of the EPPLER 858 airfoil.

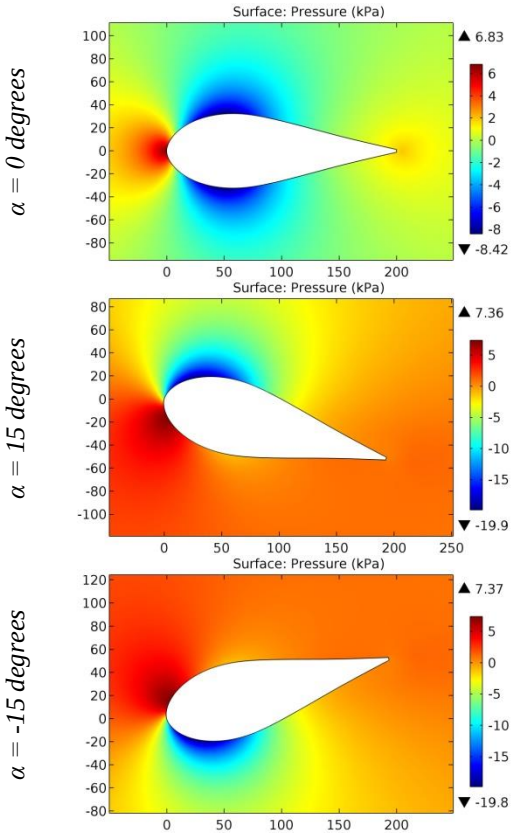


Figure 92. The pressure contours on the surfaces of the EPPLER 862 STRUT airfoil.

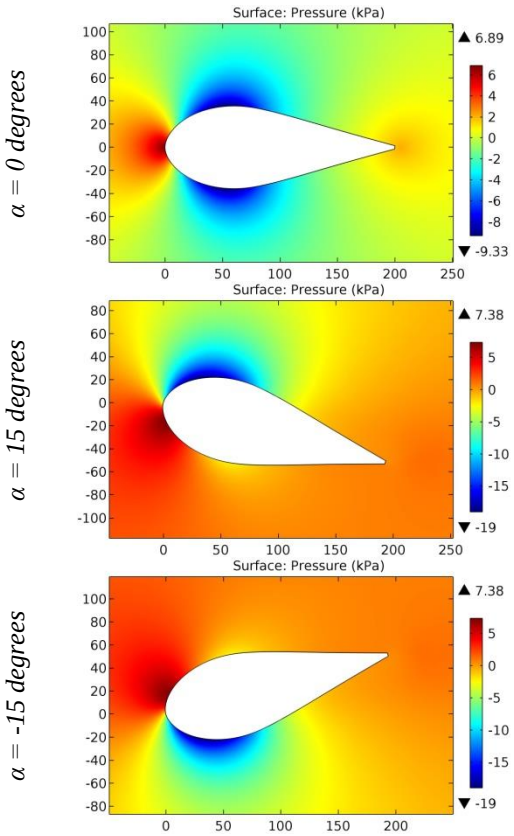


Figure 93. The pressure contours on the surfaces of the EPPLER 863 STRUT airfoil.

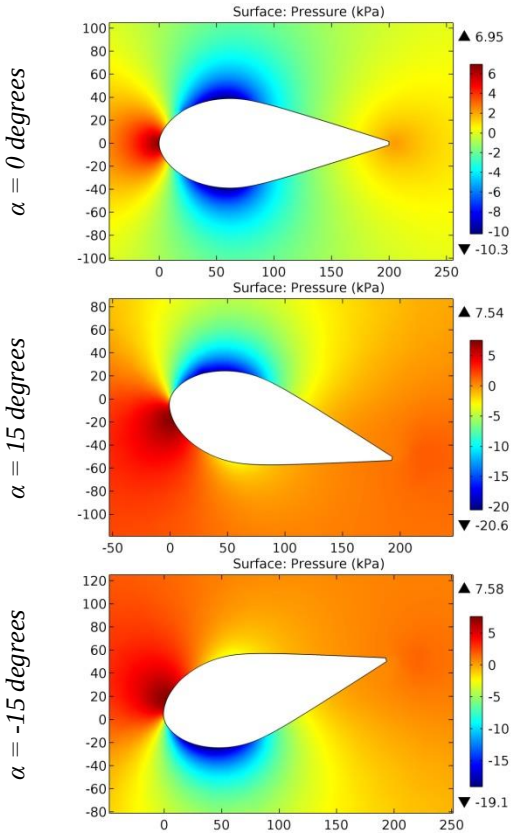


Figure 94. The pressure contours on the surfaces of the EPPLER 864 STRUT airfoil.

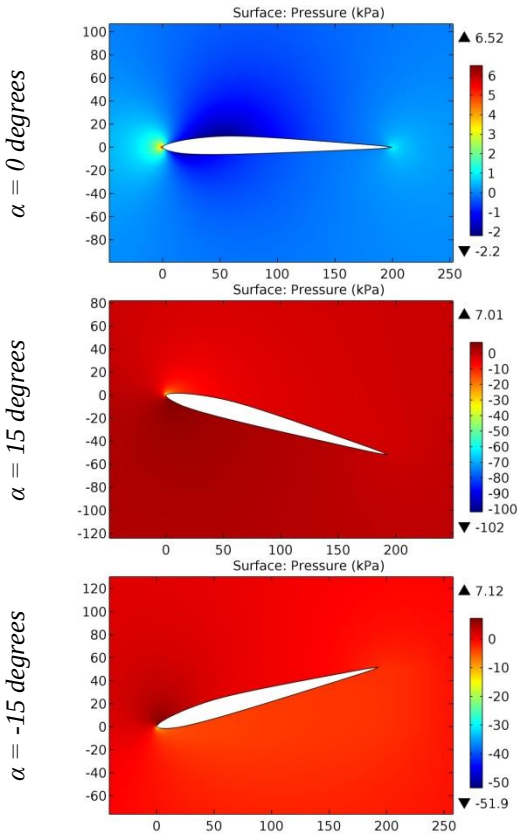


Figure 95. The pressure contours on the surfaces of the EPPLER 874 HYDROFOIL.

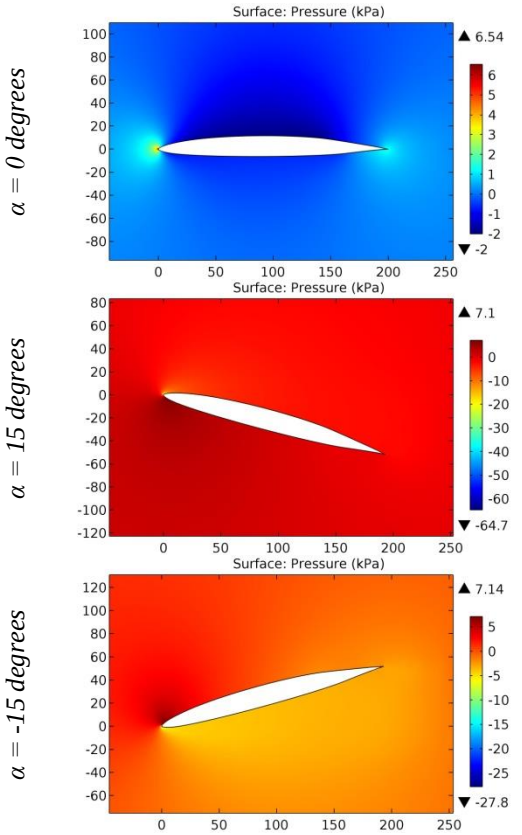


Figure 96. The pressure contours on the surfaces of the EPPLER 904 airfoil.

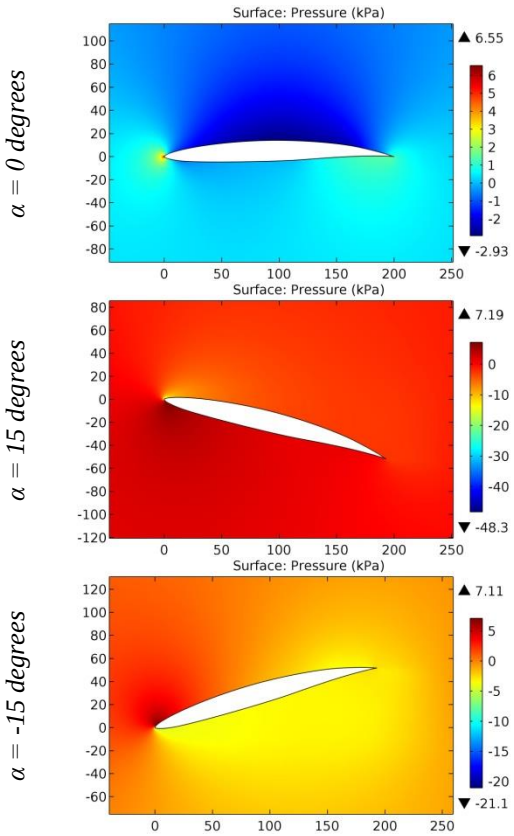


Figure 97. The pressure contours on the surfaces of the EPPLER 908 airfoil.

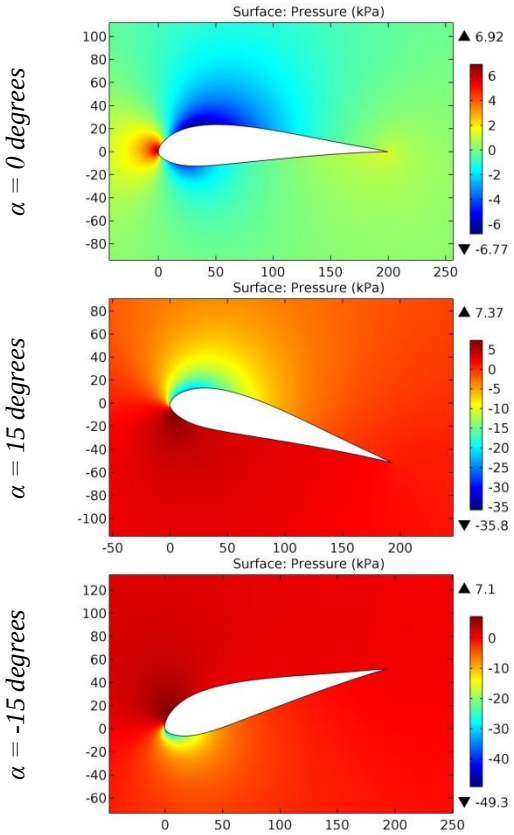


Figure 98. The pressure contours on the surfaces of the EPPLER E1212 airfoil.

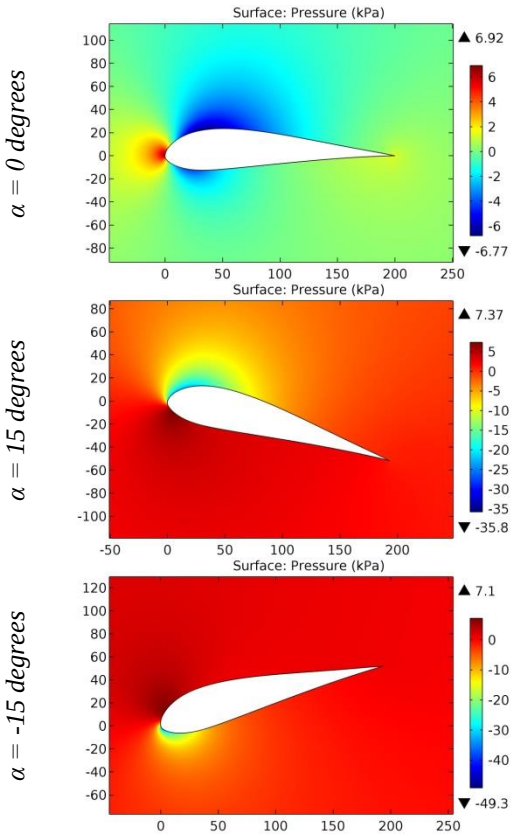


Figure 99. The pressure contours on the surfaces of the EPPLER E1212MOD airfoil.

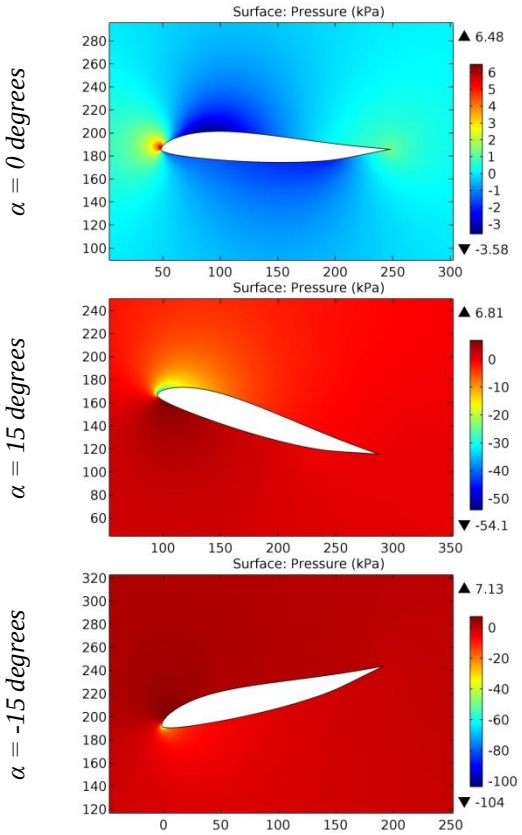


Figure 100. The pressure contours on the surfaces of the Eppler E325 airfoil.

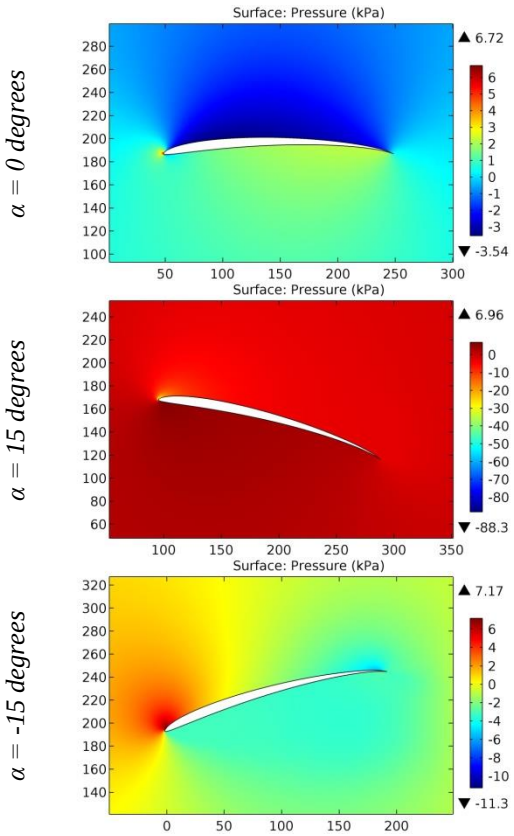


Figure 101. The pressure contours on the surfaces of the Eppler E63 airfoil.

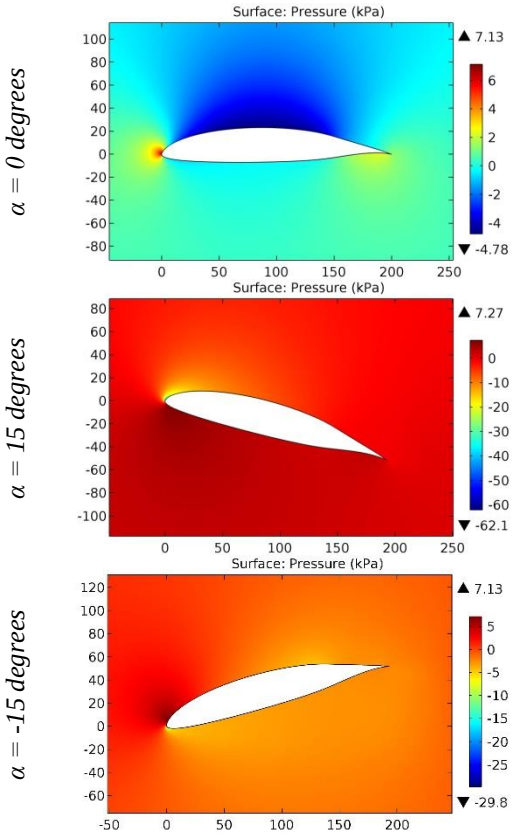


Figure 102. The pressure contours on the surfaces of the EPPLER E662 airfoil.

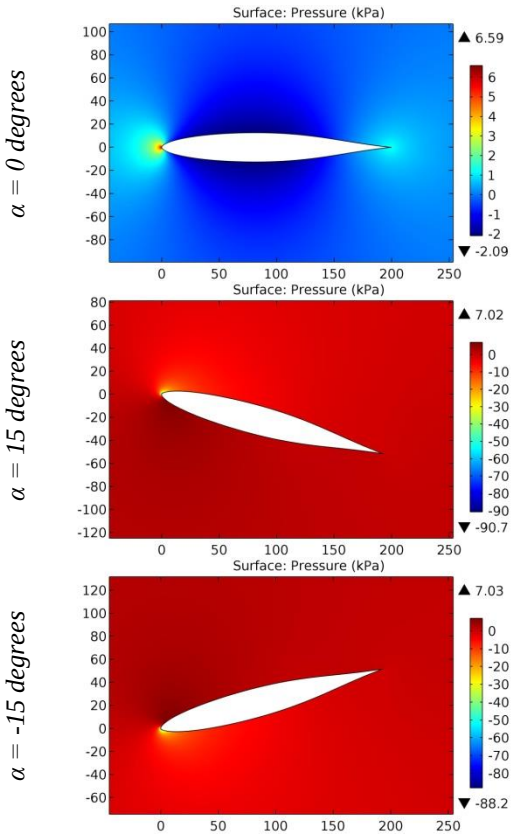


Figure 103. The pressure contours on the surfaces of the EPPLER E836 HYDROFOIL.

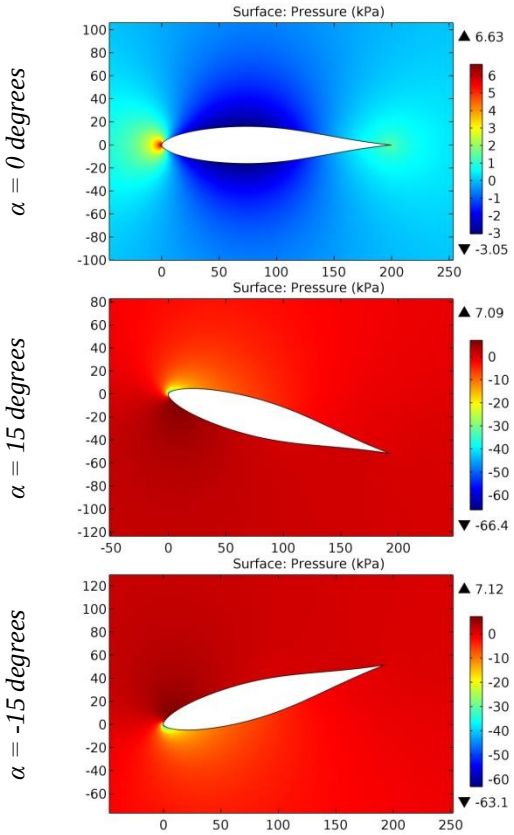


Figure 104. The pressure contours on the surfaces of the EPPLER E837 HYDROFOIL.

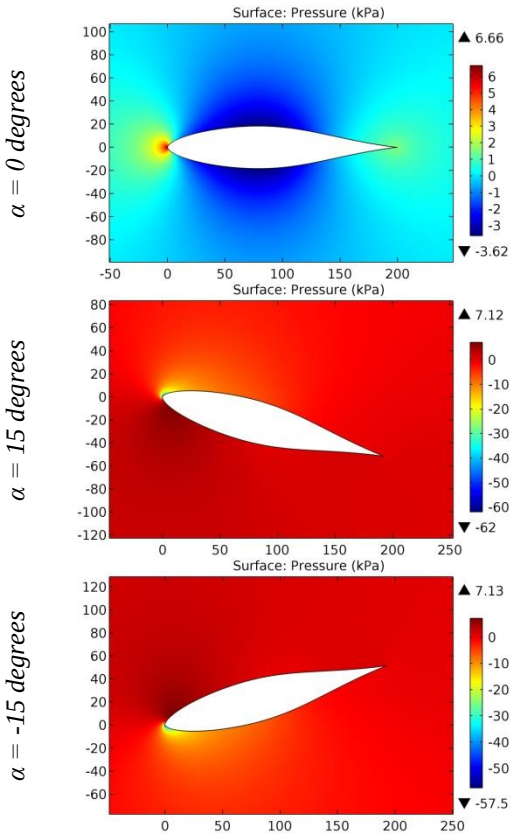


Figure 105. The pressure contours on the surfaces of the EPPLER E838 HYDROFOIL.

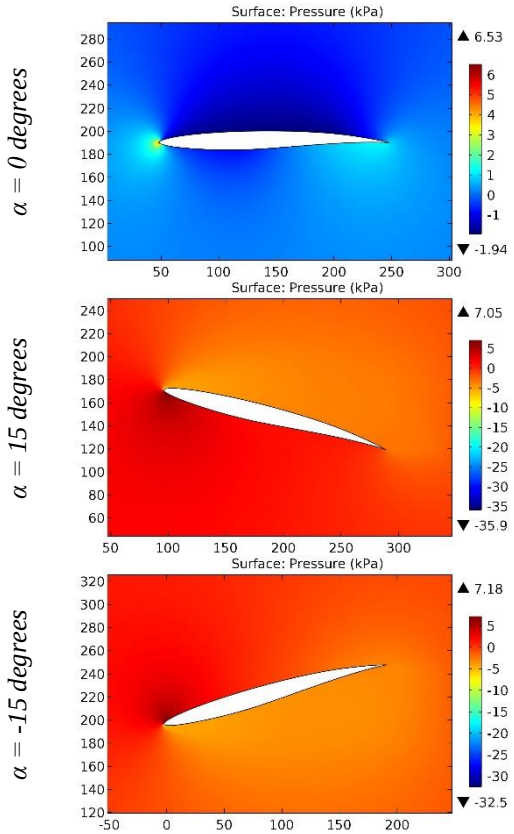


Figure 106. The pressure contours on the surfaces of the EPPLER E850 airfoil.

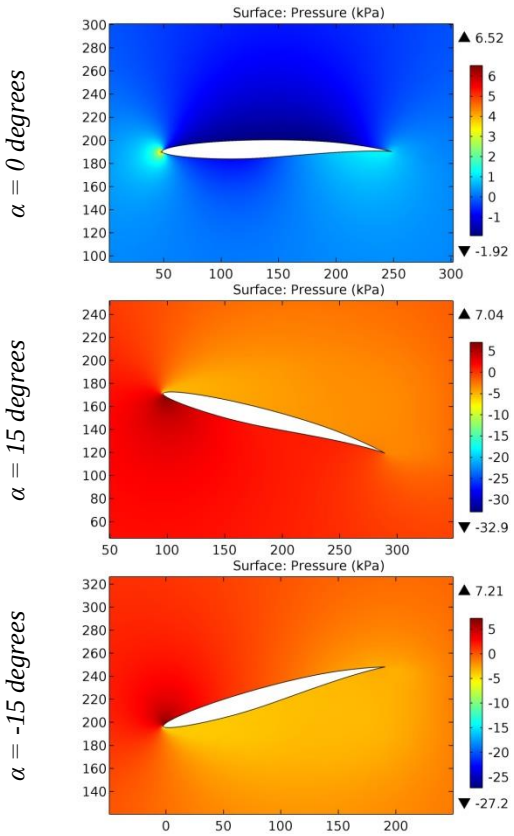


Figure 107. The pressure contours on the surfaces of the Eppler E850 propeller airfoil.

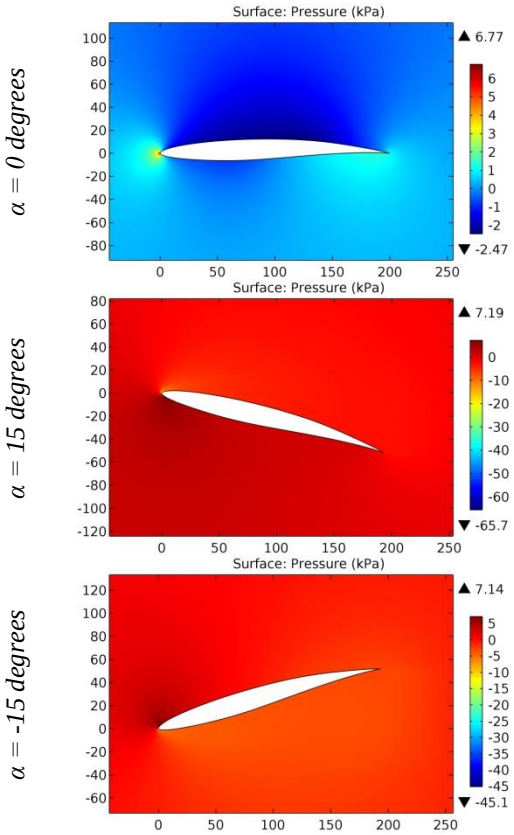


Figure 108. The pressure contours on the surfaces of the EPPLER E851 airfoil.

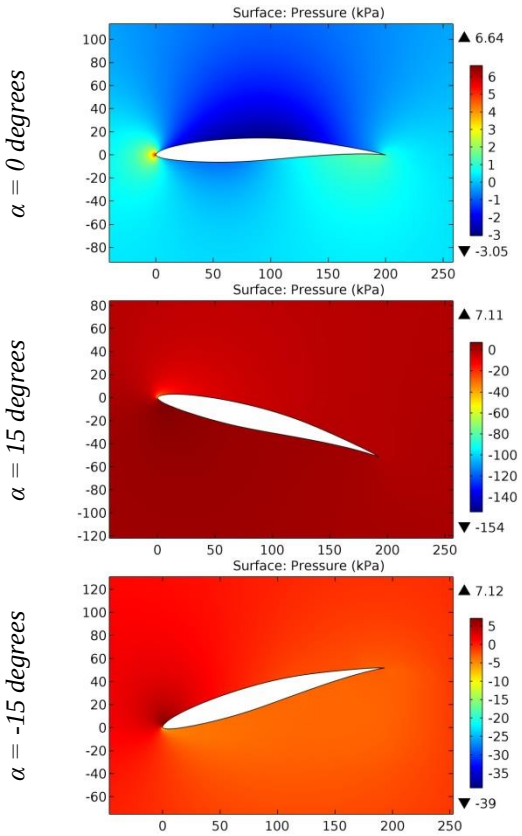


Figure 109. The pressure contours on the surfaces of the EPPLER E852 airfoil.

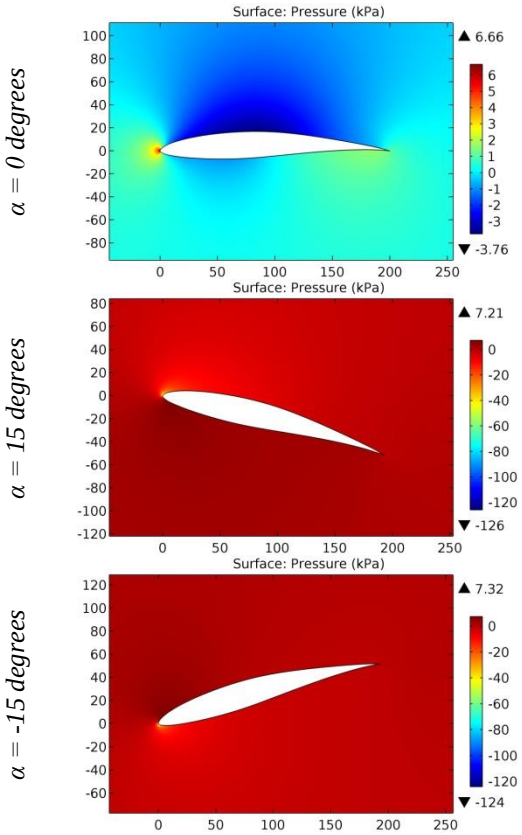


Figure 110. The pressure contours on the surfaces of the EPPLER E853 airfoil.

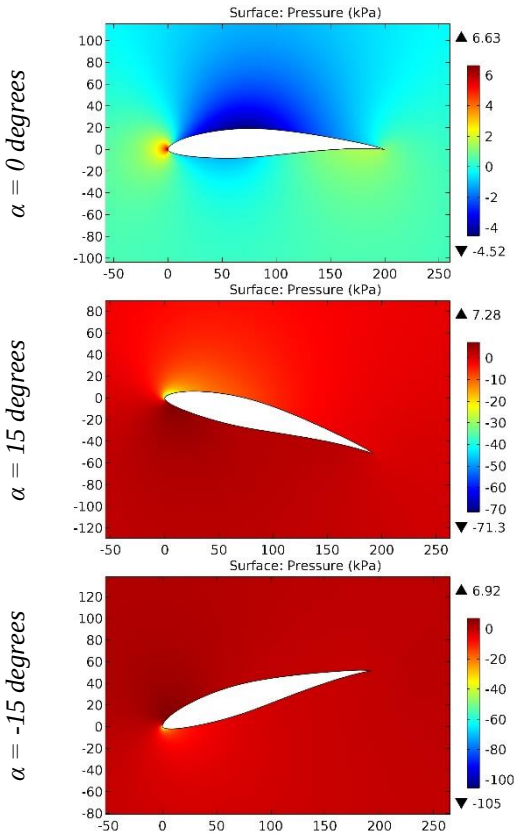


Figure 111. The pressure contours on the surfaces of the EPPLER E854 airfoil.

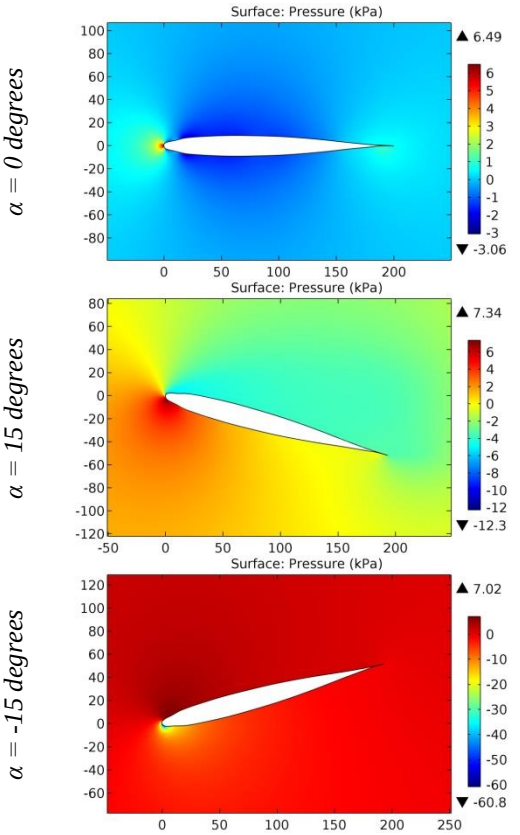


Figure 112. The pressure contours on the surfaces of the Eppler EA 6 [-1] – 009 airfoil.

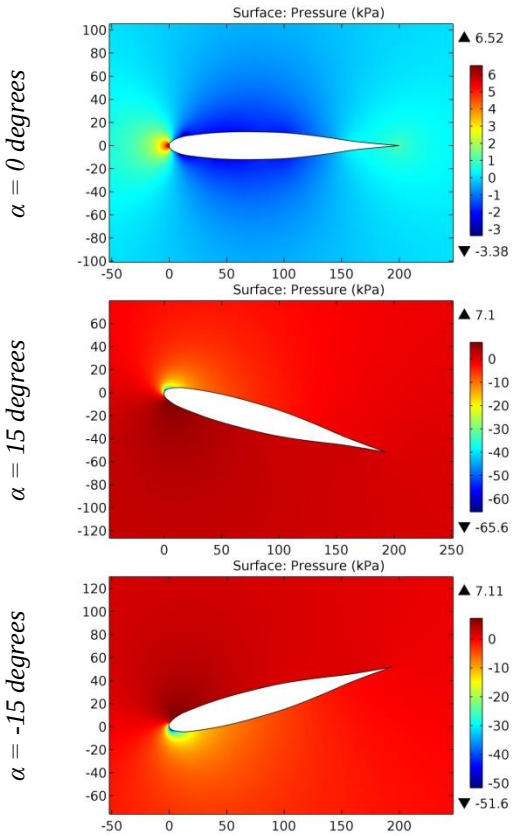


Figure 113. The pressure contours on the surfaces of the Eppler EA 6 [-1] – 012 airfoil.

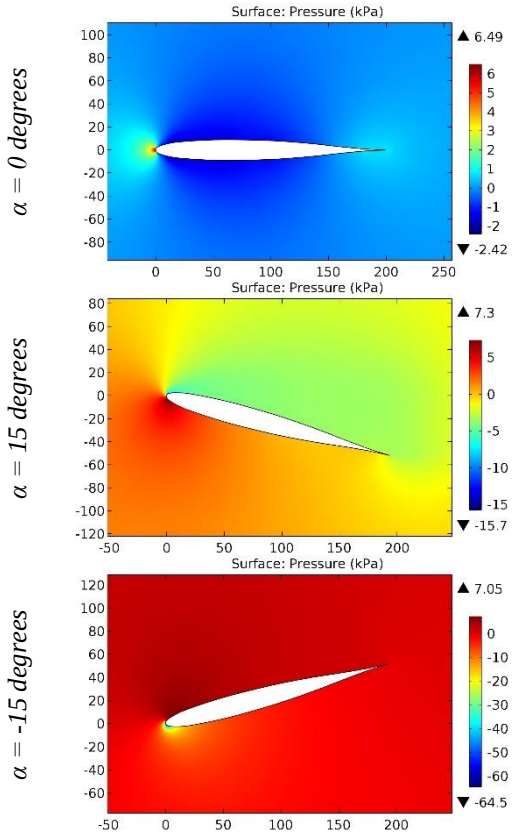


Figure 114. The pressure contours on the surfaces of the EPPLER EA 6(-1)-009 airfoil.

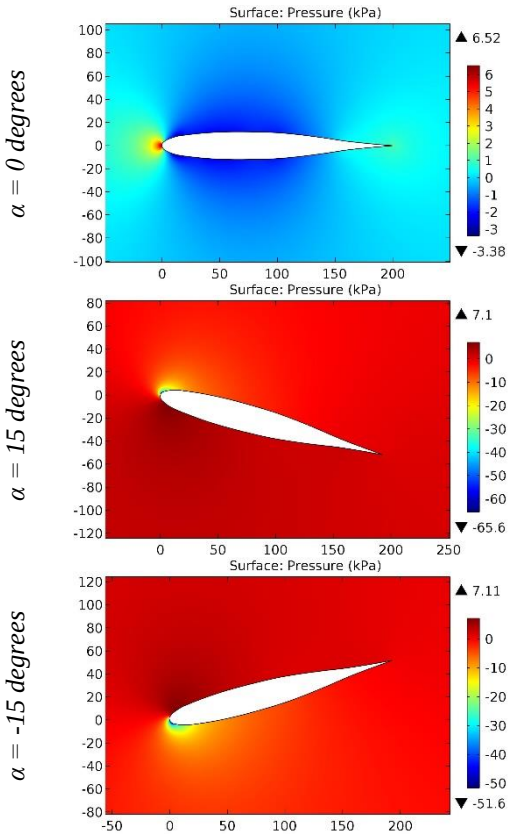


Figure 115. The pressure contours on the surfaces of the EPPLER EA 6(-1)-012 airfoil.

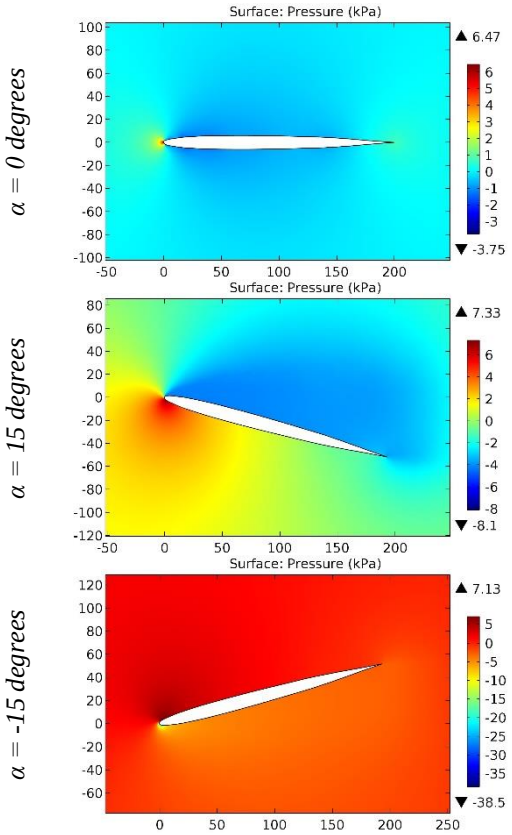


Figure 116. The pressure contours on the surfaces of the Eppler EA 8 [-1] – 006 airfoil.

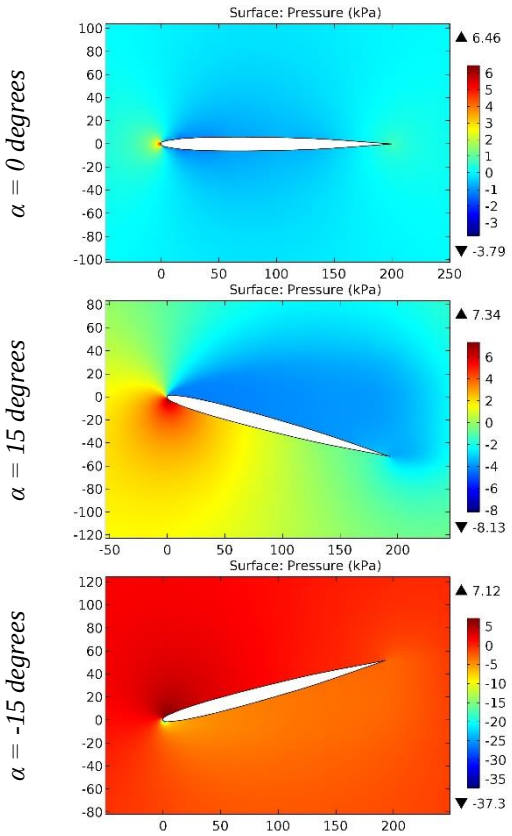


Figure 117. The pressure contours on the surfaces of the EPPLER EA 8(-1)-006 airfoil.

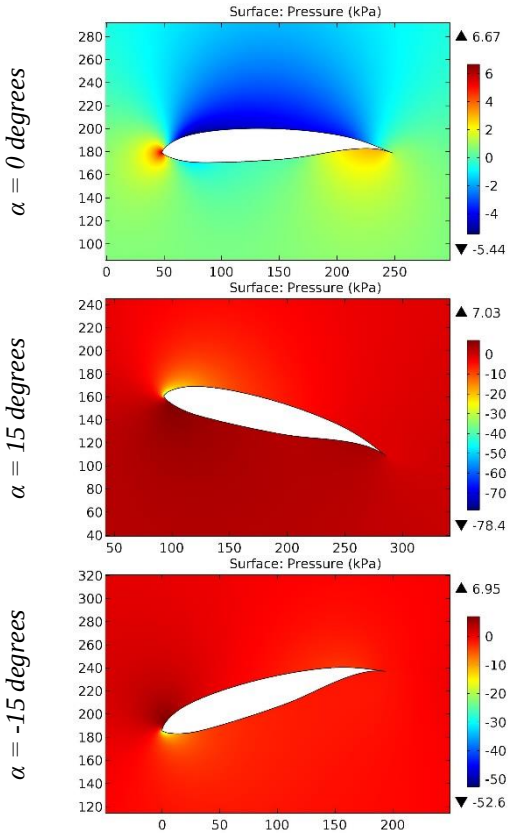


Figure 118. The pressure contours on the surfaces of the EPPLER EC 86(-3)-914 airfoil.

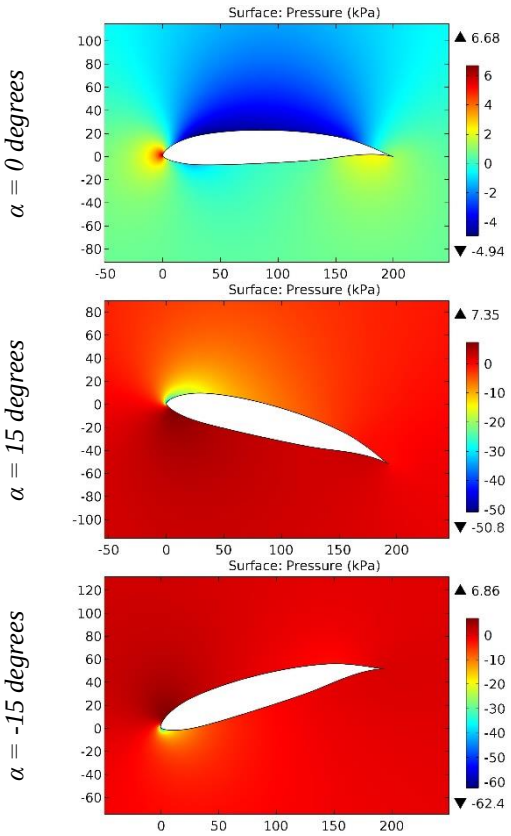


Figure 119. The pressure contours on the surfaces of the EPPLER STE 87(-3)-914 airfoil.

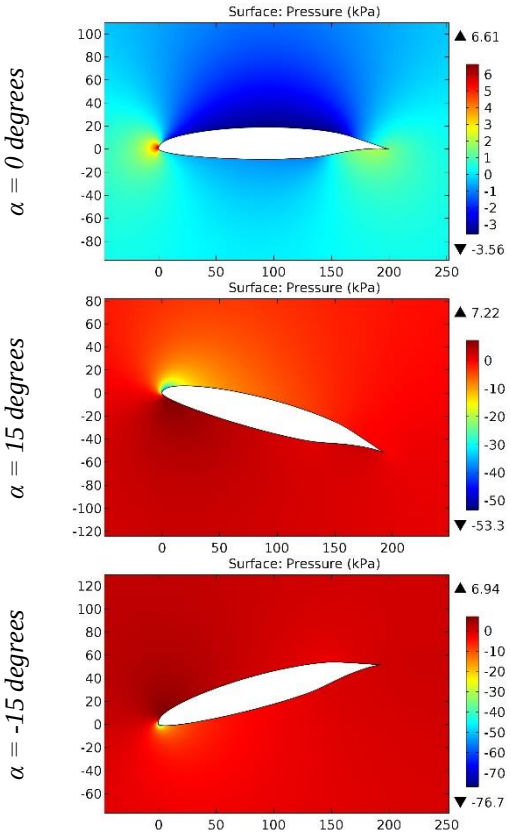


Figure 120. The pressure contours on the surfaces of the EPPLER STE 871-514 airfoil.

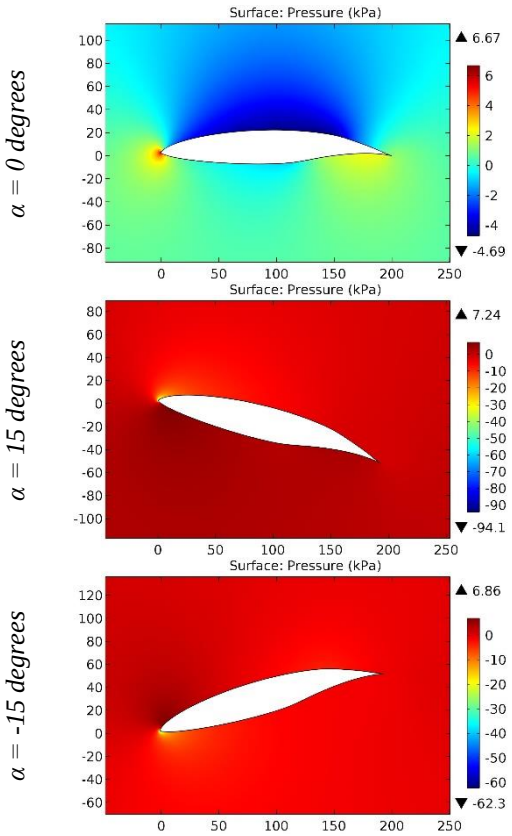


Figure 121. The pressure contours on the surfaces of the EPPLER STF 863-615 airfoil.

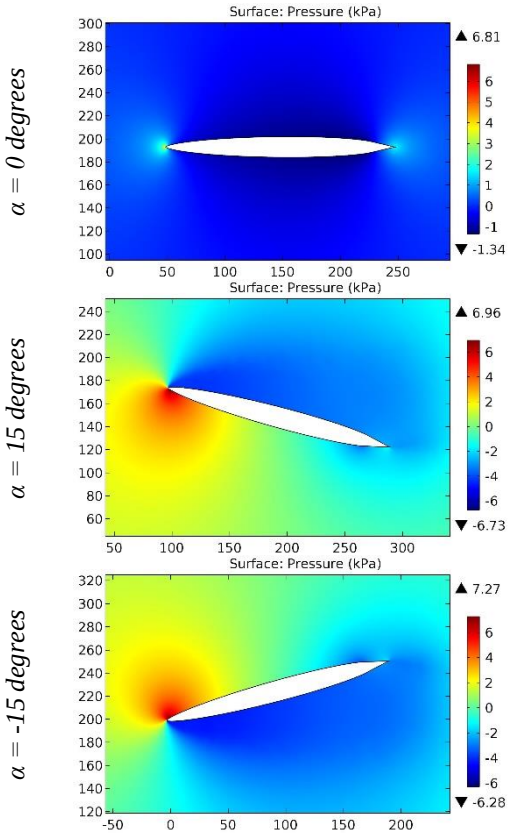


Figure 122. The pressure contours on the surfaces of the Eppler/Shen hydrofoil E900.

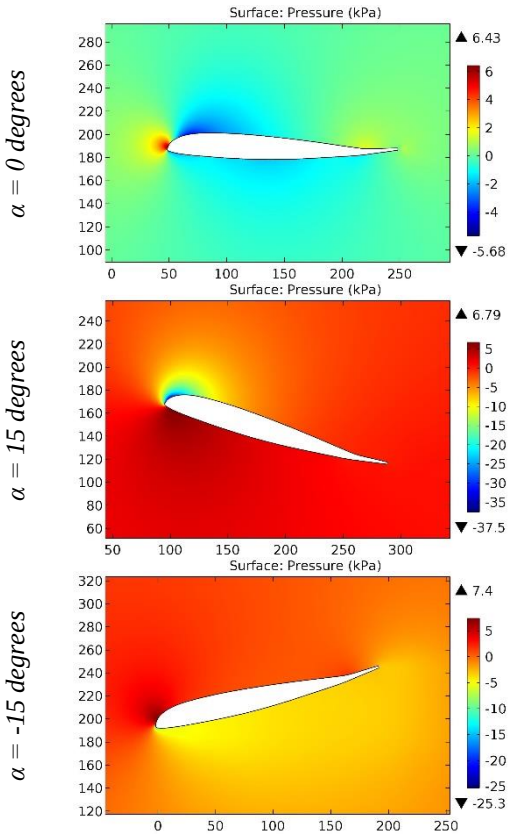


Figure 123. The pressure contours on the surfaces of the ESA40/JCE airfoil.

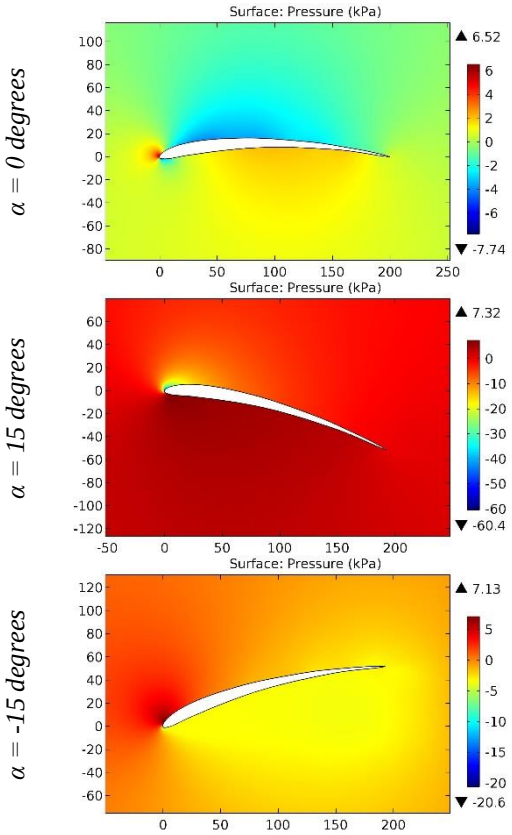


Figure 124. The pressure contours on the surfaces of the ESPADA airfoil.

Conclusion

The calculated pressures gradients were obtained for some airfoils with the negative leading edge radius and the trailing edge thickness in percentage terms. These airfoils differ from the rest by the occurrence of small negative pressure on the upper and lower surfaces and the formation of the positive pressure gradient on the lower surface from the side of the trailing edge. The drag coefficient is the highest at the positive angle of attack of the biconvex asymmetric airfoil with a thickening in the middle. The geometric shape of the Eppler/Shen hydrofoil E900 leads to the formation of low pressures in the certain range at the various angles of attack.

References:

1. Anderson, J. D. (2010). Fundamentals of Aerodynamics. *McGraw-Hill, Fifth edition*.
2. Shevell, R. S. (1989). Fundamentals of Flight. *Prentice Hall, Second edition.*
3. Houghton, E. L., & Carpenter, P. W. (2003). Aerodynamics for Engineering Students. *Fifth edition, Elsevier*.
4. Lan, E. C. T., & Roskam, J. (2003). Airplane Aerodynamics and Performance. *DAR Corp*.
5. Sadraey, M. (2009). Aircraft Performance Analysis. *VDM Verlag Dr. Müller*.
6. Anderson, J. D. (1999). Aircraft Performance and Design. *McGraw-Hill*.
7. Roskam, J. (2007). Airplane Flight Dynamics and Automatic Flight Control, Part I. *DAR Corp*.
8. Etkin, B., & Reid, L. D. (1996). Dynamics of Flight, Stability and Control. *Third Edition, Wiley*.
9. Stevens, B. L., & Lewis, F. L. (2003). Aircraft Control and Simulation. *Second Edition, Wiley*.
10. Chemezov, D., et al. (2021). Pressure distribution on the surfaces of the NACA 0012 airfoil under conditions of changing the angle of attack. *ISJ Theoretical & Applied Science, 09 (101)*, 601-606.
11. Chemezov, D., et al. (2021). Stressed state of surfaces of the NACA 0012 airfoil at high angles of attack. *ISJ Theoretical & Applied Science, 10 (102)*, 601-604.
12. Chemezov, D., et al. (2021). Reference data of pressure distribution on the surfaces of airfoils having the names beginning with the letter A (the first part). *ISJ Theoretical & Applied Science, 10 (102)*, 943-958.
13. Chemezov, D., et al. (2021). Reference data of pressure distribution on the surfaces of airfoils having the names beginning with the letter A (the second part). *ISJ Theoretical & Applied Science, 11 (103)*, 656-675.
14. Chemezov, D., et al. (2021). Reference data of pressure distribution on the surfaces of airfoils having the names beginning with the letter B. *ISJ Theoretical & Applied Science, 11 (103)*, 1001-1076.
15. Chemezov, D., et al. (2021). Reference data of pressure distribution on the surfaces of airfoils having the names beginning with the letter C. *ISJ Theoretical & Applied Science, 12 (104)*, 814-844.
16. Chemezov, D., et al. (2021). Reference data of pressure distribution on the surfaces of airfoils having the names beginning with the letter D. *ISJ Theoretical & Applied Science, 12 (104)*, 1244-1274.

Impact Factor:					
	ISRA (India) = 6.317	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 1.582	РИНЦ (Russia) = 3.939	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 9.035	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 7.184	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2022 **Issue:** 01 **Volume:** 105
Published: 28.01.2022 **http://T-Science.org**

QR – Issue QR – Article

Umidjon Matyakubov
Urgench State University
Senior lecture (PhD)
Urgench, Uzbekistan
umidjan.mat@mail.ru

IMPROVING PUBLIC-PRIVATE PARTNERSHIP MECHANISMS IN THE STRATEGIC DEVELOPMENT OF TOURISM IN THE ARAL SEA REGION

Abstract: *This article describes the relationship between natural resources and tourism stakeholders, the processes of public-private partnership (PPP) in tourism and the conceptual model of public-private partnership (PPP) in the strategic development of tourism. Based on the conceptual model of public-private partnership (PPP), recommendations are given for the implementation of investment projects, taking into account the existing tourism opportunities in the Aral Sea region of Uzbekistan. The study also reveals the methodological aspects of the analysis of regional projects implemented in the field of tourism on the basis of PPP conditions. The proposed methodological approach allows to analyze regional projects in the field of tourism on the basis of PPP conditions, compare them according to various criteria and determine the best.*

Key words: *tourism, public-private partnership (PPP), tourism infrastructure, tourist, Aral Sea region.*
Language: *Russian*
Citation: Matyakubov, U. (2022). Improving public-private partnership mechanisms in the strategic development of tourism in the Aral sea region. *ISJ Theoretical & Applied Science, 01 (105),* 672-679.
Soi: http://s-o-i.org/1.1/TAS-01-105-43 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2022.01.105.43
Scopus ASCC: *1409.*

СОВЕРШЕНСТВОВАНИЕ МЕХАНИЗМОВ ГОСУДАРСТВЕННО-ЧАСТНОГО ПАРТНЕРСТВА В СТРАТЕГИЧЕСКОМ РАЗВИТИИ ТУРИЗМА В ПРИАРАЛЬЕ

Аннотация: *В настоящей статье раскрыты взаимные связи между природными ресурсами и заинтересованными в туризме сторонами, процесс работы в сфере туризма государственно-частного партнерства (ГЧП) и концептуальная модель государственно- частного партнерства (ГЧП) в стратегическом развитии туризма. На основе концептуальной модели государственно-частного партнерства (ГЧП), с учетом имеющегося в наличии туристического потенциала в Приаральском регионе Узбекистана, приведены рекомендации по осуществлению инвестиционных проектов.*

Ключевые слова: *туризм, государственно-частное партнерство (ГЧП), туристическая инфраструктура, турист, Приаральский регион.*

Введение

На сегодняшний день правительства, учитывая нехватку рабочих мест в традиционных секторах экономики, рассматривают туризм в качестве одного из важных средств экономического развития. Исходя из этого, согласно сведениям ВТО [1. с.67], развитие официального сотрудничества во многих сферах туризма между различными учреждениями государственно-частного сектора считается непременным условием развития конкурентоспособности.

В настоящее время вопросам государственно-частного партнерства (ГЧП) в туристической сфере во всем мире придается особое внимание. Именно с помощью ГЧП, исходя из финансовых возможностей местных бюджетов, активности малого и среднего бизнеса, осуществляется множество проектов в сфере услуг. При ГЧП правительства и

отрасли/учреждения туризма имеют возможность осуществлять совместно различные виды деятельности на региональном уровне.

По мнению российских ученых [2. с.60-64], государственно-частное партнерство – это союз между правительством и бизнесом по осуществлению различных инвестиционных проектов, его основное условие составляет работа на благо общества. Участие государства в подобных проектах дает возможность сокращения срока отдачи проектов, повышения их рентабельности или предотвращения нерасчетливых действий [3.с.83-84]. ГЧП представляет собой взаимное объединение в различных отраслях государства и частного сектора, что осуществляется обычно при участии государства. Одно из основных требований ГЧП заключается в получении выгоды всеми заинтересованными сторонами посредством приведения в соответствие ресурсов и целей.

Создание механизмов ГЧП в Узбекистане прочно закреплено законом. В частности, согласно закону Республики Узбекистан “О государственно-частной собственности”[4.с.2-3], ГЧП представляет собой юридически оформленное на определенный срок сотрудничество между государством и частным партнером, основанное на объединении собственных ресурсов для осуществления проекта государственно-частного проекта. Помимо этого, ГЧП являет собой партнерство между учреждениями государственного и частного сектора и корпоративными инвесторами в целях планирования, финансирования, строительства инфраструктуры для потребителя [с.40-43].

На сегодняшний день в целях развития туристической сферы в нашей стране одной из приоритетных задач считается эффективное использование механизмов государственно-частного партнерства. Кроме того, согласно Концепции “Развитие сферы туризма в Республике Узбекистан в 2019-2025 годы” [6. с.4-5], в целях развития на территории нашей страны туризма и связанной с ним инфраструктуры определены важнейшие меры в аспекте плодотворного использования механизмов государственно-частного партнерства. В Узбекистане на основе государственно-частного партнерства разработаны организационно-экономические механизмы эффективного развития свободных экономических зон [7.34-36]. Помимо этого, активное внедрение механизмов государственно-частного партнерства в целях широкого привлечения частного сектора в сферу туризма, стимулирования деятельности предпринимательства считается одним из важных концептуальных направлений стратегического развития туризма в Приаральском регионе [8.42-46]. В процессе исследований, на основе совершенствования взаимных отношений между природными ресурсами и заинтересованными в туризме сторонами Buhalis (2000), предложена нижеследующая соотнесенность (рис. 1).

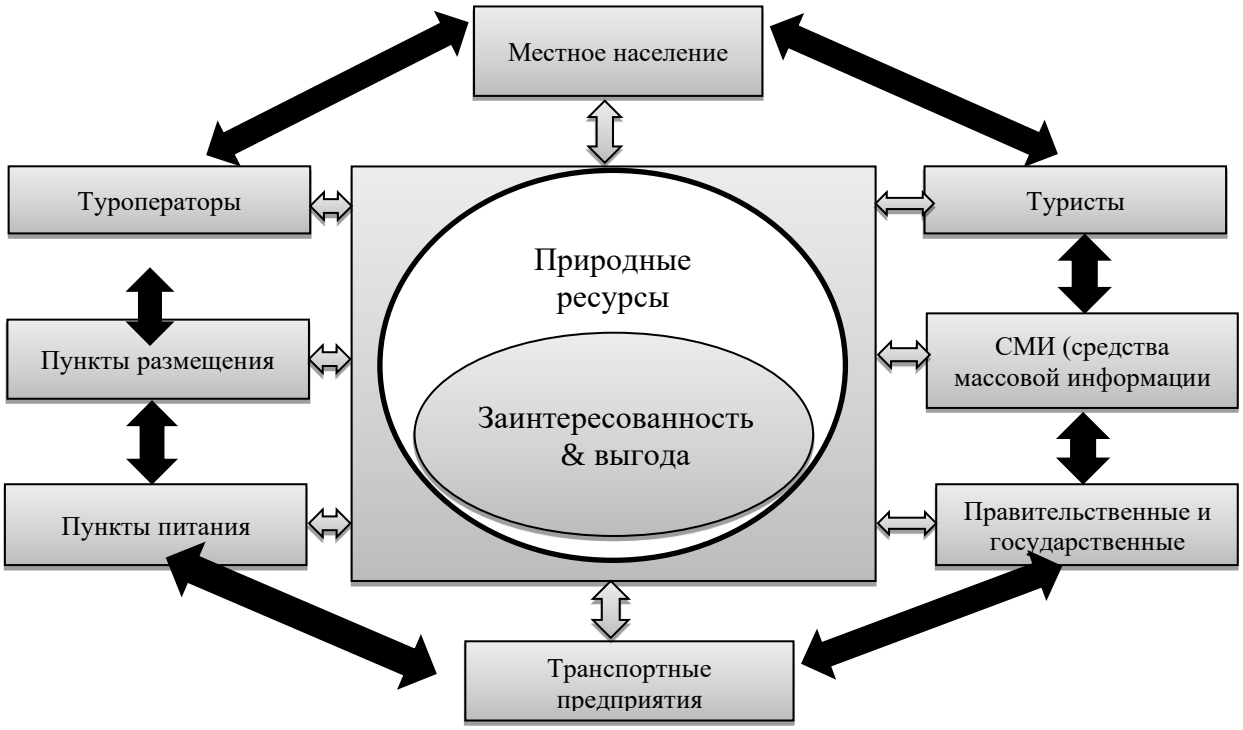


Рисунок 1-Взаимосвязь природных ресурсов и заинтересованных в туризме сторон (источник: на основе BUHALIS, D (2000). Marketing the competitive destination of the future. Tourism Management, v.21, p.97-116 усовершенствовано автором)

Согласно рис. 1, теория заинтересованности выступает нормативным средством планирования туризма. Кроме того, данная теория способна стимулировать сотрудничество между основными сторонами, участвующими в процессе планирования. Туристистическое сотрудничество представляет собой объединение двух и более заинтересованных в сфере сторон в интерактивном процессе с использованием общих правил, критериев и структур, их самостоятельные взаимодействия. Сотрудничество между государственным и частным сектором и тесные связи между местными доставщиками считаются важным фактором в целевом предложении качественной продукции на местах.

Принятая для любых случаев маркетинговая стратегия должна принимать во внимание стремления и пожелания всех заинтересованных сторон, в частности, местных предпринимателей, инвесторов, туристов, туроператоров, посредников и других соответствующих групп. Одной из основных трудностей здесь считается обеспечение использования всеми заинтересованными сторонами таких государственных активов, как природные ресурсы, и в то же время сохранение указанных ресурсов для будущих поколений.

Государственно-частного партнерства (ГЧП) в сфере туризма

Повышение эффективности оказания услуг ГЧП в сфере туризма, увеличение доходов ограниченного государственного бюджета приведет к поддержке со стороны институтов финансирования. В аспекте туризма ГЧП играет важную роль в развитии инфраструктуры в туристических дестинациях, в обеспечении безопасности туристов, в устойчивом социально-экономическом росте региона, в предотвращении различных кризисных ситуаций, в экономическом стимулировании, в развитии в отрасли знаний и навыков, в активном проведении мега-мероприятий, в выходе на рынок продукции маркетинга и туризма. Помимо этого, ГЧП в определенных направлениях или дестинациях обеспечивает конкурентоспособность индустрии туризма.

Таблица 1. Функции и обязательства государственно-частного партнерства в сфере туризма (ГЧП)

Государственный сектор		Частный сектор	
1	Наличие представления о туризме	1	Понимание экологических и социальных проблем правительств и местных сообществ
2	Должно обеспечить благоприятную среду для развития туризма. Это, в свою очередь, обеспечивает устойчивое развитие частного сектора и приносит выгоду. Кроме того, предлагает свободный денежный поток и облегчает приток инвестиций	2	Получение средств для развития и эксплуатации туристических услуг, развитие навыков и стремлений к обретению квалификации
3	Обеспечивает соответствующей инфраструктурой	3	С учетом этики, морали и справедливости необходимо принять на себя общественную ответственность за соблюдение стандартов туристической отрасли
4	Наряду со стимулированием частного сектора, его поддержка, создание удобств и оказание услуг	4	Задействование местных обществ в развитии туризма и удовлетворение предоставленными им льготами
5	Обеспечение соответствия трудовому законодательству	5	Разработка мер по подготовке профессиональных трудовых навыков для достижения высокой степени качества предоставляемых услуг
6	Приведение в устойчивый вид и обеспечение справедливой налоговой политики	6	Сотрудничество с правительствами в аспекте обеспечения безопасности и благополучия туристов
7	Создание модели упорядочения посредством договоров со всеми заинтересованными сторонами в целях сохранения природной, культурной и общественной среды	7	Развитие исследований и вклад в создание базы статистических сведений
8	Обеспечение благополучия местных сообществ, а также местных и зарубежных гостей	8	Эффективное использование технологий в целях повышения качества туристического маркетинга и услуг

В таблице 1 в полной мере нашли свое выражение закрепленные ВТО (Всемирная туристическая организация) функции и задачи государства частного сектора в ГЧП (государственно-частном партнерстве). Кроме того, со стороны ВТО определены, согласно различным направлениям, основные цели, приводящие к налаживанию партнерства.

Для повышения разнообразия туристистических дестинаций необходимо стимулирование посредством прочных связей ГЧП. Ибо, с помощью устремленных в будущее долгосрочных проектов можно добиться конкурентоспособности. В настоящее время во всем мире партнерские отношения между государством и частным сектором признаны в качестве стратегического варианта развития туризма. Определение факторов, обеспечивающих успех парнерства, а также их анализ и полное осознание объема подобного парнерства приобретает важное значение. В этом смысле мы считаем важными следующие, предоставляющие возможность поддержать и сохранить сотрудничество в сфере туризма заинтересованных сторон в организации ГЧП, факторы:

– наличие устойчивой структуры, которая с конкретной задачей и ответственностью обращается ко всем членам ГЧП (государственно-частного партнерства);

– распределение на основе общих и конкретных целей ведущих качеств между двумя секторами (государственным и частным), а также определение реальных ожиданий и заинтересованности обеих сторон;

– согласованный подход при сотрудничестве, а также понимание потребностей каждого партнера и внесение своей лепты в качестве части ресурсов;

– осознание со стороны всех партнеров необходимости устойчивого развития туризма не только с экономической, но и социальной и экологической точек зрения;

– стратегическое видение и долгосрочное обязательство, соединяющее планирование с конкретными краткосрочными целями;

– периодическая оценка эффективности роли, выполняемой со стороны каждого партнера;

– налаживание верных и плодотворных контактов между парнерами и всеми заинтересованными в сотрудничестве сторонами;

Помимо этого, по мнению [9.с.65-66], успешное управление ГЧП в сфере туризма в качестве важных факторов вбирает в себя следующее: i) экспертный опыт, ii) обоснованные цели, iii) структура управления партнерами, iv) плодотворность и эффективность партнерских действий, v) устойчивость партнерства. Ключ к успеху любого сотрудничества основывается на признании наличия деловых связей, здесь все члены на равных несут ответственность за риск в случае успеха или отсутствия инициатив [10.с.76-78]. Исходя из данного аспекта, в настоящее время острой насущностью представляется разработка концептуальной модели ГЧП (государственно-частного партнерства) в стратегическом развитии туризма в регионах нашей страны.

На сегодняшний день многие исследователи считают ГЧП самым эффективным средством в масштабе всей страны [11.с.83-90], на региональном уровне, а также для усиления конкурентоспособности в отдельно взятой туристической сфере [12.с.41-49]. Для использования ГЧП для развития сферы туризма, в первую очередь, государство должно быть готово к сотрудничеству в форме партнерства. Во-вторых, государство должно признать партнерство в качестве эффективной экономической формы и в то же время ликвидировать все барьеры между различными экономическими школами. В-третьих, государство должно конкретно определить цели проектов, осуществляемых в туризме на основе ГЧП. Кроме того, и что самое главное, устойчивыми должны быть нормативно-правовые основы для внедрения механизмов ГЧП в сфере туризма.

Для достижения равнозначности интересов в рамках конкретного проекта в туристической сфере договор должен иметь универсальный характер. Конкретно определены договоры в раличной форме (концессия, аренда, договор и др.). Заключение подобного рода договоров придает бизнесу определенный законный статус.

В процессе исследований, исходя из вышеизложенного, предложена концептуальная модель ГЧП (государственно-частного партнерства) в стратегическом развитии туризма в регионе (рис. 2). Данная концептуальная модель отличается своеобразием, прежде всего, воплощением в себе таких целей, как продукция, инфраструктура, кадры, маркетинг, реклама и финансирование. Помимо этого, важными факторами успеха ГЧП (государственно-частного партнерства) являются официальный характер соглашений, провозглашение конкретной цели, организационная структура, доминирование и приспособляемость, социальные сети и эффективность партнерства. Данная модель определяет систему интерактивного туризма. При гармонии между различными отношениями и сменой обстоятельств, данные аспекты вносят достойную лепту в успех партнерства и поэтому содействуют региональному развитию туристической дестинации.

В настоящее время имеется множество подходов к исследованиям партнерства

(сотрудничества), и они могут быть изучены в различном аспекте. В его основной концепции заложена, в первую очередь, защита динамического развития партнерских отношений от внутренних и внешних сил. Основной фактор, приводящий к сотрудничеству, состоит в стремлении всех партнеров (и государства, и частного сектора) использовать распределение ресурсов и целей. Данное исследование показало, что в обеспечении стратегического развития туризма в регионе важнейшее значение приобретает партнерство.

Кроме того, не следует отрицать и определенные сложности и барьеры при налаживании и организации партнерства. Основные аспекты успешного партнерства обычно связаны с представлениями потенциальных участников друг о друге, а также об организационных структурах в их составе. В исследовании, именно с данной точки зрения, обосновывается тот факт, что определение важных факторов успеха имеет большую значимость для верного управления партнерством, это служит основой для хорошего опыта в аспекте создания и поддержки видов сотрудничества.

Действительно, из-за экономических и финансовых кризисных явлений взаимные отношения государства и частных отраслей имеют важное значение в национальном и мировом масштабе. Таким образом, предложенную модель можно воспринимать в качестве крохотного шага в деле изучения отношений государственно-частного партнерства в региональном туризме в последующих исследованиях. Еще одна из своеобразных черт данной модели определяется тем, что каждый регион должен быть эффективно использован, исходя из его туристического потенциала.

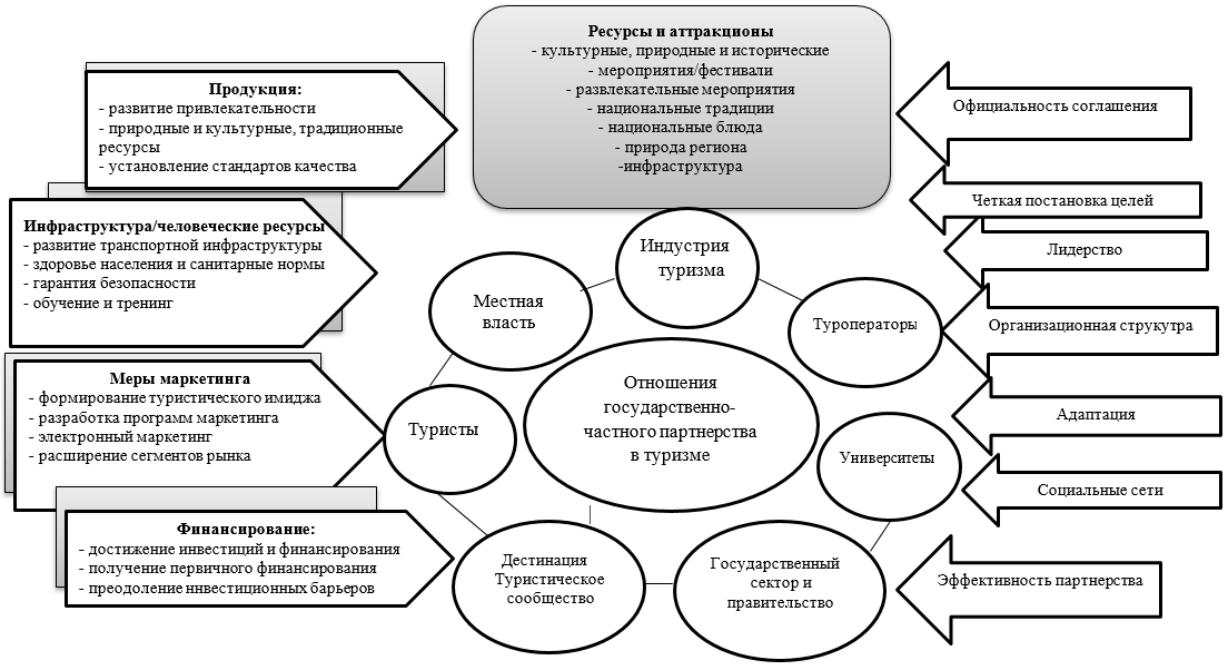


Рисунок 2-Концептуальная модель государственно-частного партнерства в стратегическом развитии туризма в регионе (источник: авторская разработка на основе исследований)

Исходя из данного аспекта, предложенная на рис. 2 концептуальная модель государственно-частного партнерства (ГЧП) имеет важную значимость и в стратегическом развитии туризма в Приаральском регионе. В частности, в последние годы принимаются программы, направленные на целевое развитие туризма в Республике Каракалпакстан и Хорезмской области (“Государственная Программа развития Приаральского региона в 2017-2021 гг.”, “Программа по комплексному развитию туристического потенциала Хорезмской области и города Хивы в 2017-2021 гг.”, “Программа ускоренного комплексного развития Муйнакского района Республики Каракалпакстан в 2019-2021 гг.”, “Программа дополнительных мер по развитию сферы туризма в Хорезмской области в 2019-2020 гг.”, “Программа мер по дальнейшему развитию туристического потенциала Хорезмской области в 2021-2022 гг.”) [13.21-27]. Претворение в жизнь таких, намеченных в данных программах, мер, как развитие туристической инфраструктуры в Приаральском регионе, совершенствование туристических направлений и услуг, большое значение имеет использование механизмов ГЧП, обоснованных в приведенной концептуальной

модели. Кроме того, указанная модель приобретает важную значимость в повышении туристической конкурентоспособности Приаральского региона, в определении недостатков и потенциала в развитии отрасли, в выполнении компетентными субъектами управленческих функций.

Перспективы

В стратегическом развитии туристической сферы в Приаральском регионе на основе данной концептуальной модели ГЧП мы считаем целесообразным внедрение инвестиционных проектов по следующим направлениям:

1. Инвестиционные проекты по таким новым направлениям туризма, как соревнования “Сафари трасса”, “Rally Muynak” в Муйнакском районе Республики Каракалпакстан, международный гастрономический фестиваль, аллея ремесленников, посещение святых мест и природный туризм;
2. Инвестиционные проекты по организации вокруг исторических памятников Элликкалинского района Республики Каракалпакстан Тупраккала, Аязкала, Катта Гулдурсинкала туристических информационных центров, сувенирных лавок, торговых рядов;
3. Инвестиционные проекты, связанные с организацией вокруг озера Акчакуль Элликкалинского района Республики Каракалпакстан пляжей, пунктов питания, аренды лодок, спасательных служб;
4. Инвестиционные проекты, направленные на строительство амфитеатров, рассчитанных на проведение концертов и развлекательных программ у подножия “Калажиккала” в Багатском районе, “Хазараспкала” в Хазараспском районе Хорезмской области, традиционного восточного базара, состоящего из пунктов общего питания, ремесленных рядов и торговых лавок;
5. Инвестиционные проекты по организации кафе при музее Савицкого в городе Нукусе Республики Каракалпакстан, при картинной галерее города Ургенча Хорезмской области.

Согласно опыту развивающихся стран, положительный эффект наблюдается и при внедрении механизмов ГЧП в защиту окружающей среды [14.53]. Именно ГЧП способно улучшить предоставление услуг посредством профессионального управления и маркетинга, уменьшить потребность в государственных субсидиях, а также привлечь инвестиции для создания инфраструктуры природных заповедников, национальных садов и парков и достижения биологического разнообразия.

В основном, в природных заповедниках и национальных садах, парках развивающихся стран не находят достаточных средств для защиты окружающей среды, для выплаты зарплаты патрульным машинаи и сотрудникам. Незащищенные в достаточной мере национальные сады, парки и заповедники сталкиваются с такого рода проблемами, как браконьерство, незаконная вырубка лесов и использование местным населением их земель для собственных нужд. Как обеспечить в таких условиях их биоразнообразие?

В подобных условиях важную роль приобретает коммерциализация посредством механизмов ГЧП (государственно-частного партнерства). С появлением на сегодняшний день заповедных зон в связи с увеличением возможностей правительств к обеспечению их необходимыми финансовыми ресурсами, агентства заповедников и национальных парков разрабатывают такие, имеющие отношение к бизнесу, автономные модели, как своеобразный управленческий подход и большая финансовая самостоятельность. Отдельные правительства в данном аспекте внедрили механизмы государственно-частного парнерства. Согласно международному опыту, данное сотрудничество состоит из двух расширенных видов:

1. Туристическое сотрудничество. Здесь частный партнер использует государственные (естественные) активы для извлечения выгоды путем организации торговых рядов, гостиничных услуг и пунктов общественного питания;
2. Сотрудничество по управлению биологическим разнообразием. Частный партнер на заповедных территориях, охраняемых государством, выполняет его функцию по защите государственных природных богатств.

Выбор одного из указанных выше зависит, прежде всего, от управленческого потенциала охраняемых государством природных ресурсов. Потребности охраняемой заповедной территории (восстановление окружающей среды, а также для инфраструктуры национальных парков и заповедников) определяют важную роль степени поддержки реформ среди заинтересованных сторон.

Исходя из данного аспекта, в дальнейшем повышении туристической привлекательности заповедных природных зон Приаральского региона считаем целесообразным эффективное использование механизмов ГЧП. В процессе наших исследований выявлена острая необходимость установления отношений сотрудничества по управлению туризмом и биологическим разнообразием, согласно приведенному выше международному опыту, расположенного в Берунийском и Амударьинском районах Республики Каракалпакстан “Государственного биосферного резервата низовьев Амударьи” и расположенных в Хорезмской области “Хорезмских национальных природных парков”. В настоящее время

биосферный резерват нижней Амударьи и Хорезмские национальные природные парки считаются одним из приоритетных направлений развития экологического туризма в Приаральском регионе [15. 9249].

По нашему мнению, в биосферном резервате нижней Амударьи в аспекте туристического сотрудничества на основе ГЧП целесообразно осуществить следующие инвестиционные проекты:

1. Организовать в биосферном резервате эко мини-гостиницы, чистые в экологическом плане санитарно-гигиенические станции, формирующие гастрономические вкусы с использованием органических продуктов, свежих овощей пункты питания;
2. Организовать музей естествознания, воплощающий в себе растительный и животный мир биосферного резервата, саму природу, соответствующие инновации;
3. Организовать в биосферном резервате базы отдыха для туристов, провести велосипедные дорожки, а также наладить широкое использование экотранспортных услуг.

В расположенных на территории кишлака “Чуболончи” Янгибазарского района, поселка Чалыш Ургенчского района, кишлака Чинобод Хивинского района Хорезмской области, а также в зоне памятников природы “Уч ўчоқ” Тупраккалинского района целом ряде “Хорезмских национальных природных парков” при государственном комитете Экологии и охраны окружающей среды в аспекте туристического сотрудничества на основе ГЧП целесообразно осуществить следующие инвестиционные проекты:

1. Возведение в национальных природных парках для ночевки туристов пунктов размещения (юрт и шатров в национальном стиле);
2. Налаживание деятельности пунктов питания на побережье Амударьи национального природного парка, предлагающих различные рыбные и другие блюда;
3. Широко привлечь частный сектор, способный предложить туристам различные экологические услуги в тугаях национального природного парка, в частности, путешествие на квадроциклах, аренда необходимого снаряжения и амуниции, организация в пустыне разного рода спортивных игр, организация верблюжьей фермы.

Посредством формирования на основе механизмов ГЧП туристической инфраструктуры биосферного резервата низовьев Амударьи Приаральского региона, а также Хорезмских национальных природных парков, здесь можно усилить конкурентоспособность экологического туризма, увеличить количество зарубежных и местных туристов, прибывающих в регион, повысить доходы местного населения и создать новые рабочие места.

References:

1. (2000). *WTO − World Tourism Organization. Public-private sector cooperation – enhancing tourism competitiveness*. Madrid.
2. Ulyanova, O.Yu., & Nikiforova, M.E. (2020). Development of state-private partnership as a form of financing of innovative infrastructure projects. *Rossiyskiy biznes*, 9 (1): 60-64.
3. Matveeva, E. (2015). Mehanizm gosudarstvenno-chastnogo partnershipstva v razvitii gostinichnoy infrastruktury. *Biznes-obrazovanie v ekonomike znaniy*, 1 (1): 83-84.
4. (2007). *Zakon Respubliki Uzbekistan “O gosudarstvenno-chastnoy sobstvennosti” № 537 from May 10, 2019.ECLAC – Economic Commission for Latin America and the Caribbean. Tourism in the Caribbean competitiveness, upgrading, linkages and the role of public-private partnership (PPP) and public policy*. (pp.40-43). United Nations.
5. (2019). *Appendix 1 to the Decree of the President of the Republic of Uzbekistan "On additional activities for the active development of tourism in the Republic of Uzbekistan"* UP-5611 from January 5, 2019.
6. Berdimurodov, A.Sh. (2021). Prioritetnie napravleniya razvitiya sfera turizma na osnove gosudarstvenno-chastnogo partnershipstva v svobodnoy turisticheskoy zone. *“Iqtisodiyot va innovatsion texnologiyalar” ilmiy elektron jurnali*., № 4, iyul-avgust, pp.34-36.
7. Matyakubov, U. (2020). Kontseptualnoe napravleniya strategicheskogo razvitiya turizma v Priaralskom regione. *Business Expert*, №5, pp. 42-46.
8. Kim, D., Kim, C., & Lee, T. (2005). *Public and private partnership for facilitating tourism investment in the Apec Region.* APEC Tourism Working Group (TWG) & Ministry of Culture

and Tourism, (pp.65-66). Republic of Korea, Asia-Pacific Economic Cooperation.

9. (2003). *WTO − World Tourism Organization. Cooperation and partnerships in tourism: a global perspective*. (pp.76-78). Madrid.
10. Shchegortsov, M., & Logacheva, A. (2018). Public-private partnership as a tool to increase the competitiveness of Russian tourism Research *Bulletin of MSITI*, 1(51), pp. 83-90.
11. Grishin, S., & Karpova, G. (2016). Conditions and prerequisites of development of clusters in the sphere of youth tourism in the North-West Federal District Universities for *Tourism and Service Association Bulletin*, 10(3), pp. 41-49.
12. Matyakubov, U. (2020). *The role of gosudarstvennoy and local programs in the development of tourism in the Pri Aralya region.* (36): with the Proceedings of the 7th International Scientific and Practical November 26-28, 2020). (pp.21-27). Washington, USA. Retrieved from https://interconf.top/
13. Balmford, A., et al. (2007). "Economic Reasons for Conserving Wild Nature." *Science*, 297 (5583), pp. 950–53.
14. Saidmamatov, O., Matyakubov, U., Rudenko, I., Filimonau, V., Day, J., & Luthe, T. (2020). Employing Ecotourism Opportunities for Sustainability in the Aral Sea Region: Prospects and Challenges. *Sustainabilitym*, 12, 9249. [CrossRef].

Impact Factor:					
	ISRA (India) = 6.317	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 1.582	РИНЦ (Russia) = 3.939	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 9.035	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 7.184	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2022 **Issue:** 01 **Volume:** 105
Published: 28.01.2022 **http://T-Science.org**

QR – Issue QR – Article

Nadira Viktorovna Yuldasheva
Tashkent Financial Institute
PhD, Acting Associate Professor of the Department of Finance,
Republic of Uzbekistan, Tashkent

WAYS TO INCREASE THE FINANCIAL INDEPENDENCE OF LOCAL BUDGETS OF THE REPUBLIC OF UZBEKISTAN

Abstract: *The article gives the concept of the economic essence of the financial independence of local budgets, presents the results of the current practice of generating local budget revenues, gives quantitative indicators that characterize the financial autonomy of local budgets of the Republic of Uzbekistan, and shows ways to increase the financial independence of local budgets.*

Key words: *revenues, expenditures of local budgets, financial independence, budget coverage ratio.*
Language: *Russian*
Citation: Yuldasheva, N. V. (2022). Ways to increase the financial independence of local budgets of the Republic of Uzbekistan. *ISJ Theoretical & Applied Science, 01 (105)*, 680-683.
Soi: http://s-o-i.org/1.1/TAS-01-105-44 ***Doi***: https://dx.doi.org/10.15863/TAS.2022.01.105.44
Scopus ASCC: *2000.*

ПУТИ ПОВЫШЕНИЯ ФИНАНСОВОЙ САМОСТОЯТЕЛЬНОСТИ МЕСТНЫХ БЮДЖЕТОВ РЕСПУБЛИКИ УЗБЕКИСТАН

Аннотация: *В статье дано понятие экономической сущности финансовой самостоятельности местных бюджетов, приведены результаты действующей практики формирования доходов местных бюджетов, приведены количественные показатели, характеризующие финансовую автономию местных бюджетов Республики Узбекистан, приведены пути по повышению финансовой самостоятельности местных бюджетов.*

Ключевые слова: *доходы, расходы местных бюджетов, финансовая самостоятельность, коэффициент бюджетного покрытия*

Введение

Теоретические и практические аспекты формирования и обеспечения стабильности доходов местных бюджетов, мобилизации местных налогов и сборов исследованы такими отечественными учёными, Ш.Тошматов, Т.Маликов, А.Джураев, Н.Хайдаров, С.Жубаев, А.Маманазаров, А.Сувонов, К.Тожибоева, Х.Кобулов, Х.Курбонов, А.Хайриддинов, Х.Кобулов, А. Исламкулов, У.Уроков, Н.Юлдашева, Н.Соатова.

Обращаясь к самому понятию самостоятельность местных бюджетов хотелось бы отметить, что это такое состояние при котором местные органы власти на местах могут финансировать в полном объёме свои расходные обязательства. Для полноценного финансирования необходимо наличие у органов власти соответствующих доходных источников, которые формируются за счёт собственных, регулирующих доходов и трансфертов. [1].

Самостоятельность местных бюджетов также зависит от распределения доходов и расходов между республиканским и местным бюджетами. Важным условием обеспечения самостоятельности местных бюджетов является то, чтобы расходы местных бюджетов полностью финансировались за счет их собственных доходов. Самостоятельность местного бюджета позволяет своевременно осуществлять расходы, предусмотренные в местном бюджете, обеспечивая полное и эффективное

финансирование. Самостоятельность местных бюджетов означает возможность покрытия предусмотренных этим бюджетом социально-экономических и иных расходных обязательств за свой счет посредством увеличения финансовых ресурсов путём эффективного использования налогового и финансового потенциала регионов [2].

Наиболее важными показателями при определении самостоятельности местных бюджетов являются обеспеченность собственными доходами, равных расходам местных бюджетов, низкая (или высокая) доля трансфертов в структуре доходов, высокий уровень полномочий местных органов власти по свободному управлению соответствующим бюджетом.

Анализ действующей практики формирования доходов бюджетов бюджетной системы Республики Узбекистан показывает, что несмотря на расширенные процессы финансовой децентрализации, предполагающие предоставление бюджетных полномочий нижестоящим органам власти, большая часть расходов осуществляется за счёт республиканского бюджета. [3].

Больший объём доходов государственного бюджета республики сосредоточен на республиканском уровне, при снижении доли доходов местных бюджетов. Так за 2015-2017 годы темпы роста доходов из года в год носили стабильный умеренный характер, в частности за период с 2015 года по 2020 год наблюдается темп роста доходов государственного бюджета в 3.5 раза, причём доходы республиканского бюджета за анализируемый период увеличились в 4.8 раза, в то время как доходы местных бюджетов в 1.9 раза.

Таблица 1. Динамика распределения доходов по уровням бюджетной системы [4]

№	Показатели	2015г	2016г	2017г	2018г	2019г	2020г
I	Доходы государственного бюджета, млрд.сум	**36 492,70**	**41 030,70**	**49 684,80**	**79 736,1**	**102 627,6**	**128 460,0**
1.1	Доходы республиканского бюджета, млрд.сум	22071,6	25110,8	31796,4	61 406,3	71 544,6	98 186,1
1.1.1.	Доля доходов республиканского в всего доходах государственного бюджета, %	60,5	61,1	64	77	69,7	76,4
1.2	Доходы местных бюджетов[1]	**14 421,1**	**15 919,9**	**17 915, 4**	**18 329,8**	**31 083,0**	**30 273,9**
1.2.1	Доля доходов местных бюджетов в доходах государственного бюджета	39,5	38.9	36	23	30,3	23,6

В 2016-2019 годах темпы роста доходов и расходов государственного бюджета превышали темпы роста доходов и расходов местных бюджетов. Такое положение считается положительным с точки зрения социально-экономического развития страны. За анализируемый период доля доходов местных бюджетов в структуре доходов государственного бюджета составила в среднем 34,3 процента, а доля расходов местных бюджетов в структуре расходов государственного бюджета - 47,2 процентов.

В целях укрепления доходной базы местных бюджетов и расширения полномочий местных органов власти на местах было предусмотрено использование следующих налогово-бюджетных механизмов регулирования, в частности пересмотр и повышение ставок земельного налога и налога за пользование водными ресурсами на 15%, акцизного налога на некоторые продукты, производимые в республике в среднем от 10-25%,

[1]Показатели доходов местных бюджетов приведены без учёта трансфертов

перехода исчисления налога на имущество физических лиц исходя из кадастровой стоимости, а также было предоставлено право местным органам власти вводить понижающие и повышающие коэффициенты по отдельным налогам[5,6].

Как известно одним из показателей, характеризующим степень финансовой автономности местных бюджетов выступает коэффициент автономии (коэффициент бюджетного покрытия (финансовой независимости), который является частным от соотношения собственных доходов к общей сумме доходов местного бюджета и представлен в нижеследующей формуле:

Таблица 2. Динамика изменения показателя бюджетного покрытия местных бюджетов Республики [4]

	2015г	2016г	2017г	2018г	2019г
	$К_п$	$К_п$	$К_п$	$К_п$	$К_п$
Респ. Каракалпакстан	22,0	23,8	19,5	25,2	14,1
Андижанская	16,6	17.0	21,0	30,8	27,5
Бухарская	33,3	30,4	45,4	43,3	41,9
Джизакская	24,5	28,7	26,8	26,4	31,8
Кашкадарьинская	36,4	40,4	48,2	53,4	31,1
Навоийская	36,2	41,8	42,4	44,5	26,9
Наманганская	27,3	28,4	31,9	35,6	37,4
Самаркандская	21,6	20,6	26,4	35,6	39,5
Сурхандарьинская	28,1	29,2	30,6	33,7	34,9
Сырдарьинская	30,4	32,8	23,4	16,2	39,5
Ташкентская	43,0	45,4	56,9	48,0	50,9
Ферганская	17,9	19,7	24,6	35,9	38,9
Хорезмская	18,4	20,3	23,4	32,1	39,5
г,Ташкент	88,0	94,2	57,4	50,5	84,4

$$К_п = \frac{Дс}{До} \quad (2.1), \qquad [7]$$

где $Кп$ -коэффициент бюджетного покрытия, $Дс$ - собственные доходы бюджета, $До$ - общие доходы бюджета

На основании представленных данных были проведены расчёты показателей бюджетного покрытия местных бюджетов:

Давая оценку действующему состоянию доходной базы местных бюджетов Республики Узбекистан за 2016-2020 годы на основе приведённых количественных и качественных характеристик посредством использования коэффициентного анализа следовало бы отметить, что коэффициент автономии местных бюджетов республики наблюдается лишь в местном бюджете Ташкента и Ташкентской области (в Ташкентской области – порядка 0,5-0.6, в Ташкенте – 0.8). В остальных местных бюджетах коэффициент составляет менее установленного норматива, то есть менее 50, то есть 0.5, что свидетельствует о слабой обеспеченности собственными ресурсами и сильной зависимости от финансовой помощи вышестоящих бюджетов.

Вторым бюджетным коэффициентом, позволяющим дать оценку степени регулирования местных бюджетов, является коэффициент соотношения перераспределяемых доходов, который показывает количество перераспределяемых доходов, приходящихся на единицу собственных доходов. Формула расчёта коэффициента приведена в нижеследующей формуле:

$$Кп = \frac{Др}{Дс} \quad (2.2), \qquad [8]$$

где $Кп$ - коэффициент перераспределения, $Дс$ - собственные доходы, $Др$ - регулирующие доходы

Так, при расчёте данного коэффициента по местным бюджетам республики за 2015-2019 можно констатировать следующее: Так за анализируемый период динамика роста данного

показателя наблюдается в местном бюджете Республики Каракалпакстан с 2.9 до 6 раз, в Бухарской области – с 0.6 до 1.4, Навойинской области с 1.8-2.7. что сигнализирует о зависимости бюджетов от вышестоящего бюджета и неустойчивом состоянии их, в Ферганской областях наблюдается снижение этого коэффициента по сравнению с 2015 годом, относительно стабильную динамику показывают местные бюджеты Сырдарьинской и Сурхандарьинской области, где данный показатель составляет 1.5, 1.9 раз.

Таким образом, приведённые данные по доходам местных бюджетов Республики Узбекистан показывают высокую долю регулирующих доходов в структуре доходов местных бюджетов Республики Узбекистан.

Таким образом, на наш взгляд для достижения финансовой независимости органов государственной власти на местах на наш взгляд, необходимо осуществить следующие меры:

необходимо обеспечить устойчивость доходной базы местных бюджетов на основе зачисления налогов на доходы физических лиц от сдачи имущества в аренду в районные и городские бюджеты[9].

передать финансирование расходов по социальным пособиям на нижестоящие местные бюджеты;

передать в местные бюджеты расходы по содержанию территориальных финансовых органов, юстиции, сферы пенсионного обеспечения, водного хозяйства, центров поышения квалификации;

оставить в распоряжение местных бюджетов поступлений по налогу на недропользования по строительным нерудным материалам

References:

1. Urokov, U.Jy. (2021). *Puti sovershenstvovanija povyshenija finansovoj samostojatel`nosti mestnyh budzhetov*. diss.doktora filosofii po jekonomicheskim naukam. (p.29). Tashkent.
2. Islamkulov, A.H. (2020). *Sovershenstvovanie sistemy nalogov v obespechenii mezhbudzhetnoj sbalansirovannosti*. Avtoreferat. diss.doktora po jekonomicheskim naukam, (p.72). Tashkent.
3. Jyldasheva, N.V. (2021). *Sovershenstovanie metodov budzhetnogo regulirovanija*. Avtor.diss.doktora filosofii po jekonomicheskim naukam, (p.29). Tashkent.
4. (n.d.). *oficial`nyj sajt Ministerstva finansov Respubliki Uzbekistan.* Retrieved from www.mf.uz
5. (2021). *Zakon Respubliki Uzbekistan ot 25 dekabrja 2020 goda, ZRU- 657 «O Gosudarstvennom budzhete Respubliki Uzbekistan na god».*
6. (2020). *Zakon Respubliki Uzbekistan ot 9 dekabrja 2019 goda, ZRU- 589 «O Gosudarstvennom budzhete Respubliki Uzbekistan na god».*
7. Pazdnikova, N.P. (2016). Kojefficientnyj analiz ustojchivosti mestnyh budzhetov. *Vestnik PNIPU. Social`no-jekonomicheskie nauki*, № 4, pp.180-193.
8. Mazur, I.E. (n.d.). Ocenka sistemy mezhbudzhetnogo regulirovanija na municipal`nom i regional`nom urovnjah. *Finansy i kredit*, №29, pp.74-80.
9. Zhartaj, Zh.M., & Jyldasheva, N.V. (2022). Sovershenstvovanie metodov budzhetnogo regulirovanija po dohodnoj baze mestnyh budzhetov. *Halkaro moli va hisob. Nauchnyj zhurnal*, №6, ISSN: 2181-1016.

Impact Factor:					
	ISRA (India) = 6.317	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 1.582	РИНЦ (Russia) = 3.939	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 9.035	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 7.184	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS
International Scientific Journal
Theoretical & Applied Science
p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)
Year: 2022 **Issue:** 01 **Volume:** 105
Published: 30.01.2022 **http://T-Science.org**

QR – Issue QR – Article

Khushnudbek Sunnatullo oġli Shernazarov
Tashkent State Pedagogical University named after Nizami
researcher

Salohiddin Najmiddin o'g'li Qaharov
Tashkent State Pedagogical University named after Nizami
Student of the Faculty of Military Education

THE ROLE OF TOLERANCE SKILLS IN PEDAGOGY AND EDUCATION

Abstract: *Tolerance education strives to build a peaceful and accepting culture in order to manage well-being and diversity. As a result, it's critical to design a learning atmosphere, material, and facilities that promote tolerance in education while also upholding universal ideals. However, there is little information in the literature about how tolerance education findings have been investigated and generalized. As a result, this study provides a thorough analysis on this topic, analyzing 75 papers using the components of the cultural-historical action theory (CHAT). It was stressed that future research should include more stakeholders in the discussion of loyalty education, such as parents and politicians; the object component tolerance education should focus not only on the physical but also on the virtual environment; and the instrument component's limited digital tools and technologies were used to develop tolerance education. Outside of the classroom environment, more learning from the community component, tolerance education, should be supplied; more ICT training should be provided than the Rules component. From a labor division perspective, school-family interactions are critical to risk management and diversity through tolerance education; and research on tolerance education from an outcome perspective should go beyond simply examining students'awareness and attitudes and, for example, examine changes in student behavior. Finally, each CHAT component received recommendations.*

Key words: *loyalty education, individuals' ethical standards, methods, communication, strategies, community organizations, personal, political, national, religious, moral high ground.*

Language: *English*

Citation: Shernazarov, Kh. S., & Qaharov, S. N. (2022). The role of tolerance skills in pedagogy and education. *ISJ Theoretical & Applied Science, 01 (105),* 684-689.

Soi: http://s-o-i.org/1.1/TAS-01-105-45 ***Doi***: crossref https://dx.doi.org/10.15863/TAS.2022.01.105.45

Scopus ASCC: *3300.*

Introduction

Through the teaching of ethical ideals, cultural differences, and tolerance, education can promote social life. Education plays a critical part in strengthening people's ethical standards and values in order to live a better life, according to the author. Tolerance education, in this context, is defined as the development of young people's ability to make independent decisions, think critically, and reason ethically. Tolerance education is also characterized as a type of education that promotes a peaceful culture. Tolerance education, on the other hand, is defined as the process of teaching the ideals of tolerating others' ideas and behaviors. Tolerance allows people to manage differences by adopting a sympathetic attitude across cultures, genders, beliefs, and generations. Students who learn via education that there may be disparities between persons in terms of ethnicity, religion, and socioeconomic status are confident in their ability to accept them. As a result, tolerance education must be taught in schools from an early age. Considered schools to be institutions that may give the required skills for resolving conflicts through tolerance education, which promotes to individual and community peace. Methods, communication, techniques, and attitudes of teachers and students

toward tolerance education have been the subject of recent studies in the literature. In order to improve students' tolerance levels, researchers found that cooperative learning is more effective than individual learning. It is critical to employ current modern educational contexts to promote future teachers' tolerance in the growth of international relations in education, according to the author. Professional competencies must be cultivated by improving tolerance for social, ethnic, confessional, and cultural differences in the workplace. Pedagogical elements and tolerance for professional development and school context were the focus of several investigations. For example, in communication, underlined the need of tolerance instruction. They looked into the relationship between teachers' communication skills growth and their communication tolerance. In addition, a survey of teachers' awareness of tolerance education was undertaken. The results provided insight into possible tactics for tolerance education. For example, developing a tolerance pedagogy in schools is challenging. As a result, through integrating cultural and intercultural education, schools should assume responsibility for educating to and through tolerance. Teachers and students discussed educational procedures and content to determine their tolerance level while dealing with challenges that happen in everyday life. The fields and practices of teacher education and work, multiculturalism, and educational management related to education policy are all studied in this study for diversity. The bidimensional psycho-pedagogical approach to tolerance teaching was discussed. The proposed strategy centered on instilling tolerance in students/potential instructors and providing teachers with tools to increase students' tolerance in the classroom and reduce the possibility of discrimination among young students. Focused on physical education to emphasize the importance of mutual respect principles, attitudes, and abilities. It has been shown that the curriculum used in educational practices plays the most important influence in instilling tolerance and universal principles. Based on children's rights and tolerance curricula in schools, we investigated the potential usefulness of arts. The study looked into how to effectively teach tolerance in a democratic society. Art efficiently improves awareness of children's rights and tolerance, according to the participants, who included teachers and students. The efficiency of an education program aimed at teaching youngster's tolerance and coexistence was investigated. This type of treatment, according to the research, can improve interpersonal connections. The research established a benchmark for analyzing the role and experiences of school leaders in promoting community fairness as the move from tolerance to participation progressed. As a result, school administrators, instructors, and families may find it useful to participate in diversity and inclusion education and to teach pupils equally. Regarding several areas of variety such as religion, gender, peace, age, respect, attitudes, and values, it was discovered that teachers who support democracy and democratic values have opposing attitudes about political, social, and moral diversity. In this regard, it was discovered that attitudes regarding diversity in persons began at a young age in the context of tolerance instruction. Furthermore, claimed that education, religion teachings, and citizenship education may be used to impart peace, compassion, and respect in society. As a result, it is suggested that the moral development of university lecturers can guide the development of students' tolerance toward social and religious behavior in the formation of contemporary society. The association between emotional adjustment, frustration tolerance, and approval motivation among female students was investigated. They discovered that reinforcing approbation motivation and frustration tolerance in kids with high emotional flexibility could be beneficial in their schooling. Fashion design students' levels of inventiveness and tolerance for uncertainty were investigated. As a result, the group with the lowest inventiveness had the lowest tolerance for ambiguity. In a religion-based school, conducted a qualitative research to assess male and female pupils' tolerance levels for differences and analyze attitudes from a gender viewpoint. As a result, female students are more sensitive to and tolerant of environmental variation than male pupils, according to the findings. Tolerance is a key characteristic in the UAE's national identity. Historical trading voyages to neighboring nations, tribal dispute resolution customs, and the country's cohesiveness are all testaments to the emirates' long-standing tolerance. The country's founder, Sheikh Zayed, declared, "Tolerance is a responsibility. We are all brothers if God, the Almighty, the Creator, is forgiving. Our brother is the righteous, and our brother is the sinful. We must not forsake or abandon the offender; rather, we must save and encourage him until he returns to the road of righteousness." Because of the region's volatile atmosphere, it's become critical to institutionalize tolerance through various community groups. By their very essence, Islamic teachings advocate for peace, tolerance, and the preservation of human dignity. Naved Bakali and I investigated the situation of tolerance in Islamic education courses in the United Arab Emirates and came up with five essential findings that show the advantages of instilling tolerance in the younger generation via Islamic education. We've also offered some suggestions about how to accomplish these benefits. Compassion for creation is a recurring theme in the study of Islamic education. Compassion is a responsibility to the environment, plants, animals, and people. Compassion may be seen in someone's attitude and concern for others. Students were imprinted with this

character via basic Qur'anic ideals such as acceptance, understanding, love for mankind, and respect for others, as well as numerous instances from the life of the Prophet Muhammad, his Companions, and those who followed him. Development. Modeling and storytelling can help teachers and parents instill compassion in their students. Participation in national and worldwide compassion campaigns and events, such as helping individuals worried about the environment or the poor, are additional possible strategies to develop a compassionate connection. Tolerance is gained by compassionate individuals who, by abandoning animosity and hostility, love everyone, regardless of ethnicity, religion, class, education level, or other connection. A lot of school administrators agree that tolerance must be taught and proper curriculum must be promoted. What pupils learn in the classroom must be reinforced outside of the classroom, which necessitates parental participation. Students might inform their parents if they are being treated unfairly by persons who do not share their appearance. We still need to figure out how to teach them how to respectfully disagree with their peers, family, and friends. Values, relationships, and behaviors that allow individuals to learn to live together in a world marked by variety and pluralism should also be emphasized in education. Today, educators have embraced John Dewey's views as urgently needed remedies to combat social inequities in schools and promote democratic and tolerant ideals. Tolerance teaching for young children is critical to continuing education programs and reinforcing the message over time. Educators have created age-appropriate resources to achieve this goal. The curriculum may include, for example, the study of significant books, school sessions on newsletters, and newspaper parts geared for young audiences. Short theatrical performances and role-playing exercises may be used as additional techniques. Critical thinking skills, role-playing games, and collaborative learning have all been shown to be successful teaching methods. Teachers must be explicit about how and why we make decisions, who is important and why, and the values we use to make these decisions. Laws are vital but insufficient in combating individual attitudes of intolerance. Fear of the unknown, of the other, of different cultures, nationalities, and faiths is frequently at the basis of intolerance. Exaggerated senses of self-worth and pride, whether personal, political, national, or religious, are likewise connected to intolerance. These ideas are instilled in children at a young age. As a result, a higher emphasis on education is required. Tolerance, neutrality, human rights, and other ways of life must be taught to youngsters in greater depth. Encourage open-mindedness and curiosity in your children at home and at school. Education is a lifelong process that does not begin or conclude in the classroom. Tolerance is crucial in achieving social equality in the classroom. It teaches pupils not just how to communicate with others, but also how to learn from individuals who are different from them. Despite the necessity of tolerance education, some instructors avoid it because it is difficult, uncomfortable, or appears to be unnecessary.

Fortunately, there are several tools and resources available to help teachers and students of all ages educate and foster tolerance. Here are some ideas on how instructors might include tolerance into their teachings, literature, and activities. Tolerance is a valuable life skill that must be carefully developed via lessons and practice.

The Variety Council, a community-based organization dedicated to embracing diversity and inclusivity, is a useful resource for teaching tolerance. The Diversity Council's activities cover a wide range of subjects related to inclusion, such as ability, discrimination, human rights, gender, ethnicity, cultural diversity, and more. Lesson plans for elementary, middle, and high school students are accessible, assisting instructors of all classes in spreading tolerance in the classroom.

The Choices Program, a Brown University endeavor that develops inclusive education based on history and contemporary challenges, is another resource. Educators may encourage children to address race on a personal level while expressing their understandings of personal identity, according to the Choices Program. Instructors should do their share to identify tools and techniques that will make teaching tolerance simpler and more approachable, even if it is uncomfortable and foreign for both teachers and pupils. Tolerance is defined as the acceptance of people who are different from you in terms of color, culture, habits, and even beliefs. You were tolerant when you received your friends and played with them, and you recognized that you wanted them to respect you, listen to your thoughts, and treat you fairly, just as they wanted you to do. Furthermore, you will discover that your various pals will expose you to new concepts and enjoyable experiences as you play with them. You've embraced your buddies for who they are and would love playing with them regardless of how similar or dissimilar they are to you. This is what tolerance is all about. Many tolerance quotes, or words written and spoken by someone else, might help you better understand tolerance and enhance it in your own life. Some of the statements are from well-known Americans who have aided youngsters like you in demonstrating, learning, and expressing tolerance for others. Tolerance allows workers to develop bridges and capitalize on workplace disparities, such as those connected to ethnic origins. Tolerance is a barrier to the team's and company's progress, as well as a breeding ground for misunderstandings and unethical activity. Tolerance is a vital aspect of attaining goals and generating innovative solutions to a variety of difficulties and obstacles in the workplace for small businesses. Tolerance in the workplace necessitates

collaboration in order to have a better knowledge of another's history, experiences, and values.

- Establish a zero-tolerance policy to instruct employees on workplace concerns including improper behavior. Acts of violence, threats, and bullying should all be addressed. Make it clear that these sorts of conduct are not tolerated in your company, and establish repercussions for violations of your zero-tolerance policy, up to and including termination. Setting expectations for all workers is necessary for creating a supportive and effective work environment. Include instructions on the sort of behavior you expect from employees in your small firm, such as appropriate etiquette with both internal and external contacts.
- Treat people with the same respect that you want to be treated with. This policy helps you to see beyond and tolerate differences in your personal and professional lives. Show generosity to others and help them when they need it. Set a high standard for other employees if you want to be a leader. To avoid being entangled in tough and risky circumstances, maintain a high moral and ethical standard.
- Make workplace communication a top focus. Encourage staff to have open discussions with coworkers in order to obtain a deeper grasp of their perspectives and ideas. Place a premium on courteous and respectful communication, whether in person, over the phone, or in writing.
- Encourage employees to seek assistance and provide assistance when needed. By reporting infractions of your company's zero-tolerance policy, encourage workers to become champions for others. Offer to assist coworkers in navigating challenging situations and resolving problems in a professional and calm way.

Tolerance is not only a good virtue to instill in your students, but it's also one of our favorite teaching blogs. This is a terrific approach to learn how to embrace greater empathy and diversity in the classroom, since it is an initiative sponsored by the Southern Poverty Law Center. We'd like to share these five recommendations for teaching tolerance in your school, which were inspired by their work. When it comes time to decorate the classroom, many instructors grumble because it appears to be such a low return on the time and effort put. Positive messaging, on the other hand, may do a lot more than boost the color palette in your classroom. You may incorporate statements that promote diversity, tolerance, acceptance, and creating a safe environment in your school. Making your classroom a welcoming and inclusive environment can benefit kids who are struggling in their personal life, particularly those who have been bullied. When important events elicit strong emotions, such as the outcome of a presidential election, the classroom may become a highly heated environment. After a huge event, one of the finest things you can do is establish a space where everyone can express their feelings and ask questions openly while you moderate the conversation. You may also assist children develop emotional intelligence by connecting the events to literature and other books. It's easy for parents and kids to become enraged about politically heated events and arguments, and while you may not be able to speak your own political beliefs openly, you may at least clarify the definitions of certain phrases or concepts that are commonly used in the national debate. Some students nowadays, for example, may have difficulty comprehending what it means when a city is designated as a "Sanctuary City," and explaining what that means might assist the student in making an autonomous decision while still keeping conversations respectful. Even though you try to establish a safe environment in the classroom, some students may be unpleasant or harsh in return. You may increase empathy in your class by responding immediately with the student without thinking. Empathy is seen as an anti-intimidation technique by many educators, and there is evidence to back this up. Encourage critical thinking and self-reflection in your classroom to increase empathy.

Most kids, and indeed most individuals, consider themselves impoverished at some point in their life, and helping your pupils understand the nature of this vulnerability may make the classroom a safer place for them. Tolerance is defined as the acceptance and understanding of others. Different communities have found it simpler to connect, meet, and communicate as a result of globalization. Thanks to our forefathers' heroic efforts and the advent of the Internet, the globe now enjoys higher levels of tolerance and variety.

However, bigotry and prejudice still exist, and in certain areas, they have grown out of hand. Tolerance may go a long way for a country and help it in a variety of ways. Everyone can successfully use their abilities and resources to better their level of living if they are treated similarly and given equal opportunity. As a result, the middle class grows and poverty decreases. Increased expenditure leads to increased economic growth and a broader consumer base. Discrimination against certain groups reduces their capacity to contribute to the economy and leads to the formation of ghettos and disadvantaged populations in nations where they are discriminated against. Discriminatory states are at a disadvantage because they risk losing proactive members of affected groups who are prone to relocating. Hatred is bred by intolerance, hatred develops distrust, and distrust promotes divisiveness. Tolerance fosters togetherness by allowing individuals of many origins, faiths, and ethnicities to work and live together. Every person in a tolerant country is devoted to his country and prepared to make sacrifices for the sake of it. In nations where some populations are disenfranchised and persecuted, affection for the country is replaced with animosity, which can lead to the state's decline. A nation's people are its foundation, and if the foundation has cracks and

defects, the nation becomes more prone to collapse. "A divided house cannot stand." There will be no peace when bigotry exists. As various groups employ force and aggressiveness against one other or the state, intolerance leads to internal turmoil, violence, and instability. Many recent historical events have demonstrated how unpleasant peace can be, whether individuals burn each other's shrines, indulge in ethnic cleansing, or leave entire nations in civil conflict. Only when people are free of hostility and willing to understand each other's differences will there be peace. People grow enraged and upset when they are unable to tolerate one another. A person might become stifled and sad in a hate-filled culture. Discrimination makes life difficult for everyone in society, not just those who are discriminated against. Accepting one another's differences can have a favorable impact on one's health. Tolerance permits one to think more broadly and experience better inner peace by removing self-imposed restrictions. Tolerance reduces stress and increases happiness in the community as a whole. Unfairness and prejudice have plagued humans from the start of civilization, resulting in wars, injustice, and brutality. Nothing good has ever come from intolerance, but it persists even in these enlightened days. If a nation's acceptance is replaced by bigotry, that nation will not be able to thrive. No meaningful progress can be made unless animosity and intolerance are replaced by mutual respect and empathy in a community. Tolerance is not a moral option, but a moral imperative for the Commonwealth of Nations to succeed in the twenty-first century, with 53 nations, hundreds of religions, and thousands of languages. Tolerance is about embracing others for who they are, even if they don't act like you, even if they share your values and ideas, even if they irritate and bother you. Tolerance entails treating everyone with decency and respect. You understand that others may have differing viewpoints and tastes, even if they live in a manner with which you disagree. Tolerance also entails not elevating your own viewpoint above that of others, even if you are certain you are correct. When people can deal with a variety of beliefs and opinions, they demonstrate their strength.

The biggest gift you can offer your children is to teach them about tolerance. How do you go about doing this? The following strategies are mentioned on the Scholastic website for promoting tolerance and respect among children:

•Make them feel special, safe, and loved.

•Teach them about new places, people, and cultures.

•Use positive comments to shape and reinforce behavior.

•Model tolerance and respect.

Fear and ignorance of the unfamiliar breed intolerance, therefore the more we learn about others, even those who are different from us, the more tolerant we will become. Tolerance is the only option if we want to live in a peaceful society.

Conclusion

Finally, practical definition is beneficial for classroom instruction because it respects kids' religious education and the moral foundations established by their families. Rather than teaching students that tolerance manifests itself in the absence of the best consideration, it necessitates a tolerance judgment: first, establishing a norm, and then establishing limitations on permissible modification. Students will struggle with what they can tolerate if they are not taught to clearly establish their own standards and permissible adjustments. When they become frustrated, they may easily switch to a secondary attitude in which they must accept everything. It doesn't necessitate much thought, yet it appears to assume a moral high ground. Some may be concerned that passing judgment would just serve to confirm someone's preconceptions. There are two reasons why this isn't a good idea. To begin with, as we can see, tolerance does function that way, thus the best course of action is to encourage pupils to think critically about their values. Second, regardless of their ideals, they should treat everyone who deviates from them with kindness.

The scientific research was conducted under the guidance of the Mirzaev Timur Alfirovich, Nizami T.S.P.U., Deputy Head of the Faculty of Military Education Head of the General Training Cycle.

References:

1. Solidjonov, D. (1990). Types of reading and writing skills on teaching. *Signal Processing*, 4, 543-564.
2. Nishonqulov, S. F. O. G. L., & Solidjonov, D. Z. O. G. L. (2021). Ta'lim biznesida raqamli innovatsion texnologiyalar. *Science and Education*, 2(6), 233-238.

3. Solidjonov, D. Z. O. (2021). *The impact of the development of internet technologies on education at pandemic time in Uzbekistan*. In student goda. (pp. 108-110).
4. Solidjonov, D. Z. (2021). The impact of social media on education: advantage and disadvantage. *Jekonomika i socium*, (3-1), 284-288.
5. Solidjonov, D. Z. O. G. L. (2021). Steam talim tizimi va unda xoriiy tillarni o'qitish. *Science and Education*, 2(3).
6. Solidjonov, D., & Nishonqulov, S. (2021). Ta'lim biznesida yangi innovatsion texnologiyalarning qo'llanishi. *journal of innovations in scientific and educational research*, volume-1. Issue-3 (Part-1, 18-June), 1, 195-199.
7. Solidjonov, D. Z. O. G. L. (2021). Steam education system and its teaching foreign languages. *Science and Education*, 2(3).

Impact Factor:					
	ISRA (India) = 6.317	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 1.582	РИНЦ (Russia) = 3.939	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 9.035	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 7.184	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2022 **Issue:** 01 **Volume:** 105

Published: 30.01.2022 **http://T-Science.org**

QR – Issue QR – Article

Gulchekhra Nasirovna Davlyatova
Ferghana State University
Associate Professor, Candidate Of Pedagogical Sciences,
Department Of Russian Philology, Faculty of Philology, Ferghana City, Uzbekistan

Azimakhon Khoshimova
Ferghana State University
Master's Student Of "Linguistics (Russian language)" Direction, Year 1,
Faculty of Philology, Ferghana City, Uzbekistan

EMOTIONAL CONCEPTS IN THE RUSSIAN SPEECH

Abstract: *The article under discussion reveals emotional concepts in the Russian speech. The authors of the article think that linguistic scholars are most interested in emotional concepts and their verbalisation in a particular language, the culturally determined reflection of an ethnos' view of the nature of emotions in linguistic units, the study of which will reveal the connection between language and the mentality of a given people.*

Key words: *emotional concepts, people, verbalisation, linguoculture, research, linguistic unit, reflection, classification, speech, dictionary, concept.*

Language: *English*

Citation: Davlyatova, G. N., & Khoshimova, A. (2022). Emotional concepts in the Russian speech. *ISJ Theoretical & Applied Science, 01 (105),* 690-692.

Soi: http://s-o-i.org/1.1/TAS-01-105-46 ***Doi***: https://dx.doi.org/10.15863/TAS.2022.01.105.46

Scopus ASCC: *3310.*

Introduction

Linguoculturology is a young science the model of which is still in the process of formation. To solve its problems, it is necessary to choose a conceptual apparatus capable of providing a precise definition of the subject and object of research and establishing connections between them. The creation and justification of this apparatus is currently being actively developed.

At the present stage of development of linguistic thought, anthropocentric orientations focusing on a human being, a carrier of language, on various spheres of human activity, on his inner world and psychological state are gaining popularity and relevance. The identifier of the internal state of the subject is emotions, which permeate all aspects of human life and are reflected in all levels of his language. In this regard, there is a growing interest in the study of emotions, the verbalization of emotions (linguistics of emotions) and emotive concepts as representations of the emotional experience of a particular linguo-society.

Main part

Concept is one of the most used general scientific terms in modern linguocultural studies. Nevertheless, the meaning of this term for scientific research needs to be clarified. The analysis of reference books and theoretical studies shows that the understanding of the term is divergent.

Let us group the definitions of the term according to the criterion of highlighting special properties of the corresponding concept in encyclopedic reference books.

The definition of the concept as "the theory of a concept, the same as meaning" is given in a number of reference books: "Philosophical Encyclopedic Dictionary" [12, p.83] and Dictionary of Logic [3, p. 148]. The "Great Encyclopedic Dictionary" defines a concept as "the semantic meaning of a name (sign), i.e. the content of a concept, the scope of which is the subject (denotat) of the name".

The fact that "in natural language, the concept is understood as an abstract content" is noted in the Dictionary of Logic. It brings the concept closer, as these terms define "a holistic totality of the object's properties" [3, p. 91].

"Modern Dictionary of Philosophy" [11, p.665] and "Linguistic Encyclopedic Dictionary" [10, p. 384] define the terms "concept" and "meaning" as phenomena of the same order, considered in different

systems of relations: meaning is considered in the linguistic system, while a concept is considered in logical relations and forms used in linguistics and logic [10, p. 384].

Similar definitions of the concept are provided by the Philosophical Dictionary. This dictionary defines a concept as a mental image, a concept, a common thought, which is somewhat different from the definitions in other reference books [13, p.p.167].

Note that the term "concept" is common in all dictionary definitions discussed above. Let us highlight the basic meaning of this term on the basis of the same reference books. In the first place, a concept contains an inseparable connection with language, is fixed in linguistic forms, encapsulates meaning. Also, a concept is a way of generalisation of phenomena and objects. It generalises and mentally singles out objects of certain classes according to a set of specific features. A concept is a defined system of knowledge. It is an abstraction, which imitates the separation of the concept from reality, but in fact, it allows a deeper knowledge of reality, highlighting and exploring its essential sides [13, p. 351].

The question of the definition of the concept is not new to science, having been raised for the first time in the medieval debates "on universals". L. Weisgerber, W. von Humboldt, A. A. Potebnya and other scientists worked on this question. S.A. Askoldov-Alexiev's work "The Concept and the Word" is devoted to this problem. It marked the beginning of a new conceptual-cultural direction in science. The author approaches the concept in a mental-activity way, describing it either as a projection of the general mechanism of action over concreteness, or as an action of mental processing (analysis and synthesis) of concreteness, or as a link between the concept and representations [1, p.p.272-274]. In his opinion, the main function of the concept is substitution; this enables the scholar to divide the concepts into artistic and cognitive ones, which differ from each other in the complexity and nature of the generalised material. A concept is represented in a language by multiple meanings of a word, according to S. A. Askoldov-Alexiev.

S. Stepanov approaches the theory of "concept" from the position of cultural studies. He calls concepts "clots of culture in a person's linguistic consciousness", believing that they are mental entities that bear the imprint of the spiritual image. Concepts are considered by the scientist as objects of emotion, they can be not only comprehended, but also experienced [7, 1997: 41].

When emotions are signified in consciousness, they acquire their own content, being represented in emotional representations or cognitive images, which include exteroceptive and interoceptive components, signaling to the subject about changes in his inner world in terms of the significance for him of the surrounding persons, objects, phenomena and events [2, p.161]. A person's ideas about his or her inner world form in the consciousness an emotional conceptosphere that consists of a system of dynamically developing thought constructs - emotional concepts.

Due to the incomplete definition of the term "concept", one of the controversial issues in its study is the typology of concepts. They are usually typologised a) structurally-semantically (lexical, phraseological); b) discursively (scientific, artistic, everyday); c) sociologically (universal, ethnic, group, individual) [4, p. 55].

As for emotional concepts, at first glance, it seems logical to refer them to the category of universal ones, because emotions are the "central part that makes representatives of different ethnos more or less similar to each other" [6, p.87]. At the same time, it is established that emotional concepts are characterized by ethnospecificity, which is caused by "the individual emotional trend and the national index of a given culture. At the same time, emotional concepts are predetermined by the varying nature of manifestation of "multidimensional interactions" of culture, language and emotions [6, p.p.86, 87].

A. A. Wierzbicka believes that each language imposes its own classification on the emotional experience of a person. [9, p.334] This allows one to consider emotions to be a "taxon of culture": their concepts, having "material exponents in language" [6, p.19], show at the same time national-cultural specificity.

H. A. Krasavskiy defines emotional concepts as a structural and semantic formation that has a lexical and/or phraseological verbalisation and is ethnically and culturally conditioned. They are based on a conceptual basis and, in addition to the concept itself, include its image and cultural value. Emotional concepts functionally substitute the objects of the world for a person in the process of reflexion and cause a person's biased attitude. [4, p. 60]. Among the factors determining the belonging of the emotional concepts to an ethnic group, Krasavskiy mentions traditions, customs, mores, peculiarities of everyday life, stereotypes of thinking, behaviour patterns, etc. These factors are historically formed throughout the development, formation of the ethnos [4, p. 74]. The basis of emotional concepts is an emotional concept, which is formed on the basis of perceptual images of the real world and captures the signs of emotionally saturated phenomena. Since emotional concepts are mental entities, they can also be interpreted as a special form of meta-regulation of mental processes, based on the sign representation that provides a generalized, abstract, socially developed categorization and organization of information about emotional experiences in the system of interconnected linguistic meanings [5, p.p.54- 55].

Finally, a distinctive feature of emotional concepts is their intelligibility, because emotions, as it is known, are inaccessible to direct visual observation and represent "a disembodied and difficult to comprehend abstraction" [8, p.83].

The given understanding of the essence of the emotional concept as the culturally marked verbalised meaning with which a native speaker endows his emotions, allows to distinguish in it conceptual, figurative and value. The given understanding of the essence of the emotional concept allows to distinguish its conceptual, figurative and value aspects, the explication of which assumes the use of various methods of linguocultural analysis.

The emotional concept is an "ethnically, culturally conditioned, complex structural and

semantic, usually lexically and/or phraseologically verbalized formation, based on the conceptual basis, including in addition to the concept, image, evaluation and cultural value, and functionally replacing to a person during reflection and communication similar objects (in a broad sense), causing a biased attitude to them" [4, p. 60]. Like any other concept, the emotional concept is a mental unit (of a high degree of abstraction), performing the function of metapsychic regulation and reflecting in the language consciousness the centuries-old experience of introspection of ethnic groups in the form of universal and culture-specific ideas about emotional experiences.

Emotional concepts in different languages represent concepts that are not identical in their content, due to the fact that they reflect different in their essence and nature the realities inherent in a particular national and cultural environment.

Thus, emotions are the most multifaceted and complex phenomenon of human life, which are the object of study of different sciences and interdisciplinary areas of anthropocentric paradigm, such as psychology, linguistics, cognitive science, psycholinguistics, ethnopsycholinguistics, emotiology, etc.

The most interesting for linguistics are emotional concepts and their verbalisation in this or that language, culturally determined reflection of ethnos' idea of the nature of emotions in linguistic units, the study of which will reveal the relationship of language with the mentality of the people.

Conclusion

In modern linguistics, scientific research carried out within the framework of philological conceptualism is recognised as a priority. Its basic term is the concept - a complex structural and semantic formation, which does not have an unambiguous interpretation among scholars today.

Within the framework of linguocognitive approach a concept is understood as a mental unit, which reflects knowledge and experience of a person, formed by him as a result of conceptualization of reality. Proponents of the cognitive direction include in the content of the concept only the basic categorical signs of the denoted in abstraction from concrete and estimated. Identification of a concept is observed.

Proponents of the linguocultural direction believe that the concept is much wider: the content of the concept includes not only categorical features of the denoted, but also all accompanying cultural and background information.

Thanks to emotions we can penetrate deep into the inner world of a person, describe the emotional picture of the world, reflecting the centuries-old experience of the ethnic group. Emotions are states associated with the evaluation of the significance for the individual of the factors acting on him and expressed primarily in the form of direct experiences of satisfaction or non-satisfaction of his actual needs. They are mental processes of evaluation of information coming into the brain about the external and internal world, which sensations and perceptions encode in the form of its subjective images. Thus, emotions express a subjective form of reflection, cognition and evaluation of objective reality.

References:

1. Askoldov, S. A. A. (1997). *The Concept and the Word// Russian Literature: From the Theory of Russian Literature: Theory and Structure of Text*. (pp.272-274). Moscow: Academia.
2. Dorfman, L. J. (1997). *Emotion in Art: Theoretical Approaches and Empirical Research.* (pp.148-161). Moscow: Meaning.
3. Ivin, A. A. A., & Nikiforov, A.L. (1998). *Dictionary of Logic*. (p.148). Moscow.
4. Krasavsky, N. A. (2001). *Emotional concepts in German and Russian Linguocultures*: Monograph. (pp.55-74). Volgograd: Peremena.
5. Reykovskiy, J. (1979). *Experimental Psychology of Emotions*. (pp.54-392). Moscow: Progress.
6. Shakhovsky, V. I. (1996). *Emotional cultural concepts: parallels and contrasts*. Language Personality: Cultural Concepts: Collection of scientific works. (pp.19-87). VGPU, PMPU-Volgograd, Arkhangelsk.
7. Stepanov, Y.S. (1997). *Constants. dictionary of Russian culture: the experience of research*. (pp.40-41, 45-54, 68). Moscow.
8. Vorkachev, S. G. (2001). *The concept of happiness: conceptual component //Language in the world in the language.* Materials of the International scientific conference. (p.83). Moscow: Gnosis.
9. Wierzbicka, A. (1997). *Language. Culture. Cognition.* (p.334). Moscow: Russian Dictionaries.
10. (1990). *Linguistic Encyclopaedic Dictionary*. (p.384). Moscow.
11. (1998). *Modern Dictionary of Philosophy. London-Frankfurt-am-Main-Paris.* Luxembourg, Moscow, Minsk.
12. (1983). *Philosophical Encyclopaedic Dictionary*. (p.83). Moscow.
13. (1991). *Philosophical Dictionary*. (p.351). Moscow.

DECISION OF PRESIDIUM OF INTERNATIONAL ACADEMY

According to the results of research work of the past 2021 and published scientific articles in the journal «Theoretical & Applied Science», Presidium of International Academy of Theoretical & Applied Sciences has decided to award the following scientists - rank Corresponding member and Academician of International Academy, as well as give diplomas and certificates of member of International Academy.

Presidium of International Academy
congratulating applicants with award of a rank of

Corresponding member of International Academy TAS (USA)

Scopus ASCC: 2000. Economics, Econometrics and Finance.			
1	**Prokhorov, Vladimir Timofeevich**	Institute of Service and Entrepreneurship (branch) DSTU Shakhty, Russia	Doctor of Technical Sciences, Professor
2	**Volkova, Galina Yurievna**	LLC TsPOSN «Ortomoda» Moscow, Russia	Doctor of Economics, Professor
3	**Blagorodov, Arthur Aleksandrovich**	Institute of Service and Entrepreneurship (branch) DSTU	

4	**Bordukh, Dmitry Olegovich**	Institute of Service and Entrepreneurship (branch) DSTU	
5	**Shcherbakov, Danil Sergeevich**	Institute of Service and Entrepreneurship (branch) DSTU	
Scopus ASCC: 1600. Chemistry.			
6	**Yurchenko, Oleg Ivanovych**	Kharkiv V.N. Karazin National University	PhD, Full Professor of Chemical Metrology Department
7	**Chernozhuk, Tetyana Vasylivna**	Kharkiv V.N. Karazin National University	PhD, Associate Professor of Inorganic Chemistry Department
8	**Kravchenko, Oleksii Andriovych**	Kharkiv V.N. Karazin National University	PhD, Associate Professor of Chemical Metrology Department

Contents

Scientific publication

«ISJ Theoretical & Applied Science, USA» - Международный научный журнал зарегистрированный во Франции, и выходящий в электронном и печатном формате. **Препринт** журнала публикуется на сайте по мере поступления статей.

Все поданные авторами статьи в течении 1-го дня размещаются на сайте **http://T-Science.org**.

Печатный экземпляр рассылается авторам в течение 3 дней после 30 числа каждого месяца.

Импакт фактор журнала

Impact Factor	2013	2014	2015	2016	2017	2018	2019	2020	2021
Impact Factor JIF		1.500							
Impact Factor ISRA (India)		1.344				3.117	4.971		6.317
Impact Factor ISI (Dubai, UAE) based on International Citation Report (ICR)	0.307	0.829							1.582
Impact Factor GIF (Australia)	0.356	0.453	0.564						
Impact Factor SIS (USA)	0.438	0.912							
Impact Factor РИНЦ (Russia)		0.179	0.224	0.207	0.156	0.126		3.939	
Impact Factor ESJI (KZ) based on Eurasian Citation Report (ECR)		1.042	1.950	3.860	4.102	6.015	8.716	8.997	9.035
Impact Factor SJIF (Morocco)		2.031				5.667			7.184
Impact Factor ICV (Poland)		6.630							
Impact Factor PIF (India)		1.619	1.940						
Impact Factor IBI (India)			4.260						
Impact Factor OAJI (USA)						0.350			

INDEXING METADATA OF ARTICLES IN SCIENTOMETRIC BASES:

International Scientific Indexing ISI (Dubai, UAE)
http://isindexing.com/isi/journaldetails.php?id=327

Cl.An. // THOMSON REUTERS, EndNote (USA)
https://www.myendnoteweb.com/EndNoteWeb.html

Research Bible (Japan)
http://journalseeker.researchbib.com/?action=viewJournalDetails&issn=23084944&uid=rd1775

Scientific Object Identifier (SOI)
http://s-o-i.org/

РИНЦ (Russia)
http://elibrary.ru/contents.asp?issueid=1246197

Google Scholar (USA)
http://scholar.google.ru/scholar?q=Theoretical+t-science.org&btnG=&hl=ru&as_sdt=0%2C5

Turk Egitim Indeksi (Turkey)
http://www.turkegitimindeksi.com/Journals.aspx?ID=149

Directory of abstract indexing for Journals
http://www.daij.org/journal-detail.php?jid=94

DOI (USA)
http://www.doi.org

CrossRef (USA)
http://doi.crossref.org

Open Academic Journals Index (Russia)
http://oaji.net/journal-detail.html?number=679

Collective IP (USA)
https://www.collectiveip.com/

Japan Link Center (Japan) https://japanlinkcenter.org

PFTS Europe/Rebus:list (United Kingdom)
http://www.rebuslist.com

Kudos Innovations, Ltd. (USA)
https://www.growkudos.com

Korean Federation of Science and Technology Societies (Korea)
http://www.kofst.or.kr

AcademicKeys (Connecticut, USA)
http://sciences.academickeys.com/jour_main.php

Sherpa Romeo (United Kingdom)
http://www.sherpa.ac.uk/romeo/search.php?source=journal&sourceid=28772

Cl.An. // THOMSON REUTERS, ResearcherID (USA)
http://www.researcherid.com/rid/N-7988-2013

RedLink (Canada)
https://www.redlink.com/

Cl.An. // THOMSON REUTERS, ORCID (USA)
http://orcid.org/0000-0002-7689-4157

TDNet
Library & Information Center Solutions (USA)
http://www.tdnet.io/

Yewno (USA & UK)
http://yewno.com/

RefME (USA & UK)
https://www.refme.com

Stratified Medical Ltd. (London, United Kingdom)
http://www.stratifiedmedical.com/

THE SCIENTIFIC JOURNAL IS INDEXED IN SCIENTOMETRIC BASES:

Advanced Sciences Index (Germany)
http://journal-index.org/

SCIENTIFIC INDEXING SERVICE (USA)
http://sindexs.org/JournalList.aspx?ID=202

Global Impact Factor (Australia)
http://globalimpactfactor.com/?type=issn&s=2308-4944&submit=Submit

International Society for Research Activity (India)
http://www.israjif.org/single.php?did=2308-4944

CiteFactor (USA) Directory Indexing of International Research Journals
http://www.citefactor.org/journal/index/11362/theoretical-applied-science

JIFACTOR
http://www.jifactor.org/journal_view.php?journal_id=2073

Eurasian Scientific Journal Index (Kazakhstan)
http://esjindex.org/search.php?id=1

SJIF Impact Factor (Morocco)
http://sjifactor.inno-space.net/passport.php?id=18062

InfoBase Index (India)
http://infobaseindex.com

Электронно-библиотечная система «Издательства «Лань» (Russia)
http://e.lanbook.com/journal/

International Institute of Organized Research (India)
http://www.i2or.com/indexed-journals.html

Journal Index
http://journalindex.net/?qi=Theoretical+%26+Applied+Science

Open Access Journals
http://www.oajournals.info/

Indian citation index (India)
http://www.indiancitationindex.com/

Index Copernicus International (Warsaw, Poland)
http://journals.indexcopernicus.com/masterlist.php?q=2308-4944

Signed in print: 30.01.2022. Size 60x84 1/8
«Theoretical & Applied Science» (USA, Sweden, KZ)
Scientific publication, p.sh. 49.25. Edition of 90 copies.
http://T-Science.org E-mail: **T-Science@mail.ru**

Printed «Theoretical & Applied Science»