Prof. SİNAN EYİ

Personal Information

Office Phone: +90 0312 210 4283
Email: seyi@metu.edu.tr
Web: https://avesis.metu.edu.tr/seyi

International Researcher IDs
ScholarID: Ozo0vG0AAAAJ
ORCID: 0000-0002-7380-0733
Publons / Web Of Science ResearcherID: AAC-8165-2020
ScopusID: 6603288394
Yoksis Researcher ID: 165077

Education Information

Post Doctorate, University of Illinois at Urbana-Champaign, Mühendislik, Havacılık ve Uzay Mühendisliği, United States Of America 1995 - 1996
Doctorate, University of Illinois at Urbana-Champaign, Mühendislik, Havacılık ve Uzay Mühendisliği, United States Of America 1990 - 1995
Postgraduate, University of Illinois at Urbana-Champaign, Mühendislik, Havacılık ve Uzay Mühendisliği, United States Of America 1987 - 1990
Undergraduate Minor, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, Turkey 1977 - 1982

Foreign Languages

English, B2 Upper Intermediate

Research Areas

Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Aerospace Engineering, 2019 - Continues

Advising Theses

EYİ S., Convergence performance of the approximate factorization methods with multi-block implicit boundary conditions at hypersonic speeds, Postgraduate, M.KOCA(Student), 2022
UĞUR Ö., EYİ S., Loose coupling of SU2 multiphysics code with pato to analyze the surface recession effect on surface heat flux, Postgraduate, M.ÇELİK(Student), 2022
EYİ S., Development of a design method for subsonic intakes with improved aerodynamic performance and reduced

radar signature, Postgraduate, T.ÜNLÜ(Student), 2021
EYİ S., MONTAJLANMIŞ MOTORUN ATALETSEL PARÇACIK AYRIŞTIRICISININ SAYISAL ANALİZİ, Postgraduate, A.BURAK(Student), 2021
EYİ S., Ablation modeling for high speed internal and external flows, Doctorate, O.Kaan(Student), 2020
EYİ S., Development and evaluation of new bleed boundary condition models for supersonic inlet boundary layer bleed flow, Postgraduate, G.Akar(Student), 2019
EYİ S., Aerothermodynamic shape optimization using DSMC and POD-RBF methods, Postgraduate, H.KUTKAN(Student), 2018
EYİ S., Analysis, design and test of a jet vane based thrust vector control for tactical missiles, Postgraduate, O.EREN(Student), 2017
EYİ S., Conceptual aerodynamic design of ramjet missiles, Postgraduate, E.DEMİRAL(Student), 2017
EYİ S., Aerodynamic design optimization using 3-dimensional Euler equations and adjoint method, Postgraduate, A.YILDIRIM(Student), 2017
EYİ S., Analysis of hypersonic flow using three dimensional navier-stokes equations, Postgraduate, M.Özgün(Student), 2016
EYİ S., Effects of diffusion in hypersonic flow, Postgraduate, H.BERK(Student), 2016
EYİ S., Analysis of hypersonic flow using three dimensional Navier-Stokes equations, Postgraduate, M.ÖZGÜN(Student), 2016
EYİ S., Three dimensional reacting flow analysis of a cavity-based scramjet combustor, Postgraduate, R.ROUZBAR(Student), 2016
EYİ S., Choice and development of a preconditioner for Newton-GMRES algorithm, Postgraduate, Y.EMRE(Student), 2015
EYİ S., CFD analysis of missile shroud separation, Postgraduate, H.ERKAN(Student), 2015
EYİ S., Analysis of weakly ionized hypersonic flow, Postgraduate, T.PİŞKİN(Student), 2015
EYİ S., Subsonic-transonic submerged intake design for a cruise missile, Postgraduate, O.AKMAN(Student), 2014
EYİ S., The effects of static aeroelasticity on the performance of two-dimensional converging diverging nozzles, Postgraduate, Ü.DÜZEL(Student), 2014
EYİ S., Performance comparison of newton and Newton-GMRES methods in 3-D flow analysis, Postgraduate, B.YILDIZLAR(Student), 2014
EYİ S., Numerical simulation of hydrodynamic planar motion mechanisim test for underwater vehicles, Postgraduate, M.CAN(Student), 2014
EYİ S., Numerical simulation of hydrodynamic planar motion mechanism test for underwater vehicles, Postgraduate, M.Can(Student), 2014
EYİ S., Perfomance analyses of newton method for multi-block structured grids, Postgraduate, E.AYAN(Student), 2011
EYİ S., Performance analyses of newton method for multi-block structured grids, Postgraduate, E.Ayan(Student), 2011
EYİ S., Sensitivity analysis using finite difference and analytical jacobians, Postgraduate, A.ALPER(Student), 2009
EYİ S., Free flexural (or bending) vibrations analysis of certain groups of stiffened composite plates or panels-In flight vehicle structures, Postgraduate, J.JAVANSHİR(Student), 2009
EYİ S., Accuracy and efficiency improvements in finite difference sensitivity calculations, Postgraduate, M.Özhamam(Student), 2007
EYİ S., Accuracy and efficiency in finite difference sensitivity calculations, Postgraduate, M.ÖZHAMAM(Student), 2007
EYİ S., Parallel navier stokes solutions of low aspect ratio rectangular flat wings in compressible, Doctorate, G.DURMUŞ(Student), 2004
EYİ S., Parallel navier stokes solutions of low aspect ratio rectangular flat wings in compressible flow, Doctorate, G.Durmuş(Student), 2004
EYİ S., Effect of the Jacobian evaluation on direct solutions of the Euler equations, Postgraduate, Ö.ONUR(Student), 2003
EYİ S., Effect of the Jacobian evalution on direct solutions of the Euler equations, Postgraduate, Ö.Onur(Student), 2003
EYİ S., Performance evaluation and improvements of inverse compressor cascade design, Postgraduate, B.KAPLAN(Student), 2000
ÇIRAY C., EYİ S., A trial for new turbulence model for low reynolds number turbulent boundary layer, Postgraduate, S.Kilerci(Student), 2000
EYİ S., Sensitivity analysis in turbomachinery cascade design optimization, Postgraduate, İ.ERGÜN(Student), 2000

EYİ S., A Trial for a new turbulence model for low reynolds number turbulent boundary layer, Postgraduate, S.KİLERCİ(Student), 2000

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Ablation Analyses of Optimized Nose Tips for Hypersonic Vehicles**
Onay O. K., EYİ S.
JOURNAL OF THERMOPHYSICS AND HEAT TRANSFER, vol.34, no.1, pp.78-89, 2020 (SCI-Expanded)

II. **Shape Optimization of Reentry Vehicles to Minimize Heat Loading**
Eyi S., Hanquist K. M., Boyd I. D.
JOURNAL OF THERMOPHYSICS AND HEAT TRANSFER, vol.33, no.3, pp.785-796, 2019 (SCI-Expanded)

III. **Aerothermodynamic Design Optimization of Hypersonic Vehicles**
Eyi S., Hanquist K. M., Boyd I. D.
JOURNAL OF THERMOPHYSICS AND HEAT TRANSFER, vol.33, no.2, pp.392-406, 2019 (SCI-Expanded)

IV. **Reacting flow analysis of a cavity-based scramjet combustor using a Jacobian-free Newton-Krylov method**
Rouzbar R., EYİ S.
AERONAUTICAL JOURNAL, vol.122, no.1258, pp.1884-1915, 2018 (SCI-Expanded)

V. **Aerothermodynamic shape optimization of hypersonic blunt bodies**
EYİ S., Yumusak M.
ENGINEERING OPTIMIZATION, vol.47, no.7, pp.909-926, 2015 (SCI-Expanded)

VI. **Convergence Error and Higher-Order Sensitivity Estimations**
Eyi S.
AIAA JOURNAL, vol.50, no.10, pp.2219-2234, 2012 (SCI-Expanded)

VII. **Design optimization of rocket nozzles in chemically reacting flows**
Yumusak M., EYİ S.
COMPUTERS & FLUIDS, vol.65, pp.25-34, 2012 (SCI-Expanded)

VIII. **Effects of sensitivity derivatives on aerodynamic design optimization**
Eyi S.
Inverse Problems In Science And Engineering, vol.2, no.1996, pp.213-235, 2007 (SCI-Expanded)

IX. **Effects of the Jacobian evaluation on Newton's solution of the Euler equations**
Onur O., Eyi S.
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN FLUIDS, vol.49, no.2, pp.211-231, 2005 (SCI-Expanded)

X. **Inverse airfoil design using the Navier Stokes equations**
Eyi S., Lee K.
ENGINEERING OPTIMIZATION, vol.28, no.4, pp.245-262, 1997 (SCI-Expanded)

XI. **High-lift design optimization using Navier-Stokes equations**
Eyi S., Lee K., Rogers S., Kwak D.
JOURNAL OF AIRCRAFT, vol.33, no.3, pp.499-504, 1996 (SCI-Expanded)

XII. **AIRFOIL DESIGN OPTIMIZATION USING THE NAVIER-STOKES EQUATIONS**
EYI S., HAGER J., LEE K.
JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS, vol.83, no.3, pp.447-461, 1994 (SCI-Expanded)

XIII. **2-POINT TRANSONIC AIRFOIL DESIGN USING OPTIMIZATION FOR IMPROVED OFF-DESIGN PERFORMANCE**
HAGER J., EYI S., LEE K.
JOURNAL OF AIRCRAFT, vol.31, no.5, pp.1143-1147, 1994 (SCI-Expanded)

XIV. **TRANSONIC AIRFOIL DESIGN BY CONSTRAINED OPTIMIZATION**
LEE K., EYI S.
JOURNAL OF AIRCRAFT, vol.30, no.6, pp.805-806, 1993 (SCI-Expanded)

XV. **AERODYNAMIC DESIGN VIA OPTIMIZATION**

LEE K., EYI S.
JOURNAL OF AIRCRAFT, vol.29, no.6, pp.1012-1019, 1992 (SCI-Expanded)

Articles Published in Other Journals

I. **ATMOSFERİK GEÇİŞ YAPAN ARAÇ ETRAFINDA NAVIER-STOKESDENKLEMLERİ İLE ÜÇ BOYUTLU HİPERSONİK AKIŞ ANALİZİ**
Özgün M., EYİ S.
Havacılık ve Uzay Teknolojileri Dergisi, vol.7, pp.71-77, 2014 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. **FIRLATMA RAMPALARINDA ATEŞLEME AŞIRI BASINÇ DALGALARININ HAD ANALİZİ**
Duru M. Ö., Eyi S.
10. ULUSAL HAVACILIK ve UZAY KONFERANSI, Ankara, Turkey, 18 - 20 September 2024, pp.1-10

II. **BEŞİNCİ NESİL BİR SAVAŞ UÇAĞININ KAVRAMSAL TASARIMI: UÇUŞ MEKANİĞİ YAKLAŞIMI**
Kırkar A., Eyi S.
10. ULUSAL HAVACILIK ve UZAY KONFERANSI, Ankara, Turkey, 18 - 20 September 2024, pp.1-11

III. **ROKET KALKIŞ RAMPALARINDA EĞİM AÇISININ VE GEOMETRİNİN ETKİSİNİN İNCELENMESİ**
Yahya L., Soylu Z. S., Eyi S.
10. ULUSAL HAVACILIK ve UZAY KONFERANSI, Ankara, Turkey, 18 - 20 September 2024, pp.1-11

IV. **Ignition Overpressure Analyses of Launch Pads at Different Deflector Angles**
İriolya T. G., Eyi S.
12. International Conference on Computational Fluid Dynamics (ICCFD12), Kobe, Japan, 14 - 19 July 2024, no.6, pp.1-22

V. **HIGH-FIDELITY NUMERICAL INVESTIGATION OF A HIGH PRESSURE TURBINE COOLED VANE**
Gokenis F., Peneklioglu K., Oksuz O., Erdem E., EYİ S.
69th ASME Turbo Expo 2024: Turbomachinery Technical Conference and Exposition, GT 2024, London, England, 24 - 28 June 2024, vol.13

VI. **Numerical Modeling of Hypersonic Air and Carbon Dioxide Flows in Thermochemical Non-Equilibrium with SU2-NEMO Solver**
Çelik M., Uğur Ö., Eyi S.
The 2nd International Conference on Flight Vehicles, Aerothermodynamics and Re-entry Missions Engineering (FAR), Heilbronn, Germany, 19 - 23 June 2022, pp.1-6

VII. **Computational modelling and analysis of porous bleed holes at supersonic speeds**
Akar G., EYİ S.
AIAA Propulsion and Energy 2020 Forum, Virtual, Online, 24 - 28 August 2020, pp.1-10

VIII. **Comparison of Fully Coupled and DecoupledModeling Results of Graphite Ablation In Hypersonic Flows**
Onay O., EYİ S.
10th Ankara International Aerospace Conference, Ankara, Turkey, 18 - 20 September 2019, vol.10

IX. **Integrated Shap Optimization of RAE-M2129 Inlet for Aerodynamic Performance and Reduced Radar Cross Section**
Unlu T., Atasoy M., Dincer E., EYİ S.
10th Ankara International AerospaceConference, Ankara, Turkey, 18 - 20 September 2019, vol.10

X. **Shape Optimization of Reentry Vehicles to Minimize Heat Loading**
EYİ S., Hanquist K. M., Boyd I. D.
2019 AIAA Scitech Forum, San Diego, CA USA, 7 - 11 January 2019, vol.2019

XI. **Gözenekli Tahliye Sistemlerinin Ses-üstü Hızlarda Hesaplamalı Akışkanlar Dinamiği ile Analizleri**

Akar G., EYİ S.
VII. Ulusal Havacılık Ve Uzay Konferansı, Turkey, 12 - 14 September 2018, vol.2018

XII. **Aerothermodynamic Shape Optimization of Reentry Capsules Using DSMC and POD Methods**
Kutkan H., EYİ S.
10th NTERNATIONAL CONFERENCE ON COMPUTATIONAL FLUID DYNAMICS, 9 - 13 July 2018, vol.10

XIII. **Aerothermodynamic Design Optimization of Hypersonic Vehicles**
EYİ S., Hanquist K. M., Boyd I. D.
2018 Multidisciplinary Analysis and Optimization Conference, Atlanta, Georgia, 25 - 29 June 2018, vol.2018

XIV. **Aerothermodynamic Shape Optimization of Reentry Capsule**
Kutkan H., EYİ S.
2018 Joint Thermophysics and Heat Transfer Conference, Atlanta, Georgia, 25 - 29 June 2018, vol.2018

XV. **CFD Analyses of Hypersonic Flow Regimes with Stephan-Maxwell Diffusion Equation**
Gür B., EYİ S.
2018 Fluid Dynamics Conference, Atlanta, Georgia, 25 - 29 June 2018, vol.2018

XVI. **Multi Block and Parallel Computations of Rotor Fan Using Three Dimensional Euler Equations**
Özmen E., EYİ S.
2018 Fluid Dynamics Conference, Atlanta, Georgia, 25 - 29 June 2018, vol.2018

XVII. **Transient Thermochemical Erosion Modeling for Solid Propellant Rocket Motor Nozzles Including the Effect of Shape Change and Anisotropy**
Onay O., EYİ S.
2018 Fluid Dynamics Conference, Atlanta, Georgia, 25 - 29 June 2018, vol.2018

XVIII. **CFD Analysis of Diffusion Phenomena in Hypersonic Flow Regimes**
Gür B., EYİ S.
26th Annual Conference of the Computational Fluid Dynamics Society of Canada Winnipeg, 10 - 12 June 2018, vol.26

XIX. **Simulations of hypersonic flow regions with Fick's law of diffusion with addition of different diffusivity models**
Gur H. B., EYİ S.
AIAA Aerospace Sciences Meeting, 2018, Florida, United States Of America, 8 - 12 January 2018

XX. **Diffusion Models Implementation in Hypersonic Flow Regimes**
Gür B., EYİ S.
9th Ankara International Aerospace Conference, 20 - 22 September 2017, vol.2017

XXI. **Analysis of effects of different diffusion models in hypersonic flow regimes**
Gur H. B., EYİ S.
8th AIAA Theoretical Fluid Mechanics Conference, 2017, Colorado, United States Of America, 5 - 09 June 2017

XXII. **Aerodynamic optimization of wing-body configuration using discrete adjoint method**
YILDIRIM A., EYİ S.
35th AIAA Applied Aerodynamics Conference, 2017, Colorado, United States Of America, 5 - 09 June 2017

XXIII. **Three Dimensional Design Optimization Using Adjoint Method with Newton Krylov Solver**
Yıldırım A., EYİ S.
52nd AIAA/SAE/ASEE Joint Propulsion Conference, Salt Lake City, UT, 25 - 27 July 2016, vol.2016

XXIV. **Scramjet Combustor Flow Analysis Using Coupled Navier-Stokes and Finite Rate Chemical Equations**
Rouzbar R., EYİ S.
46th AIAA Fluid Dynamics Conference, Washington, Kiribati, 13 - 17 July 2016, vol.2016

XXV. **Adjoint Shape Optimization of Hypersonic Blunt BodiesIncluding the Effect of Graphite Ablation**
Onay O., EYİ S.
Ninth International Conference onComputational Fluid Dynamics (ICCFD9), 11 - 15 July 2016, vol.9

XXVI. **Three Dimensional Hypersonic Flow Analysis Around a Reentry Vehicle Using Navier-Stokes Equations**
Özgün M., EYİ S.
Ninth International Conference on Computational Fluid Dynamics (ICCFD9), 11 - 15 July 2016, vol.9

XXVII. **Three Dimensional Design Optimization Using Adjoint Method**
Yıldırım A., EYİ S.
34th AIAA Applied Aerodynamics Conference, Washington, Kiribati, 13 - 17 June 2016, vol.2016

XXVIII. **Convergence Acceleration Based on Eigenvalue Analysis**
EYİ S.
46th AIAA Fluid Dynamics Conference, Washington, Kiribati, 13 - 17 June 2016, vol.2016

XXIX. **Modelling Thermochemical Nonequilibrium during Atmospheric Re-Entry**
Pişkin T., EYİ S.
51st AIAA/SAE/ASEE Joint Propulsion Conference, Orlando, FL, 27 August - 27 September 2015, vol.2015

XXX. **Implicit Solution of One-Dimensional Transient Ablation**
Onay O., EYİ S.
13th International Energy Conversion Engineering Conference, Orlando, FL, 27 July 2105 - 29 July 2015, vol.2015

XXXI. **Hypersonic Flow Analysis of Re-entry Vehicles Using Three Dimensional Navier-Stokes Equations**
Özgün M., EYİ S.
13th International Energy Conversion Engineering Conference, Orlando, FL, 27 July 2105 - 29 July 2015, vol.2015

XXXII. **Diffusion Effect on Hypersonic Flow Using Fick's Law**
Gür B., EYİ S.
13th International Energy Conversion Engineering Conference, Orlando, FL, 27 - 20 July 2015, vol.2015

XXXIII. **Simulations of Ethylene and Hydrogen Combustions in Scramjet Combustor**
Rouzbar R., EYİ S.
51st AIAA/SAE/ASEE Joint Propulsion Conference, Orlando, FL, 27 July 2105 - 29 July 2015, vol.2015

XXXIV. **Performances of Newton and Preconditioned Newton-GMRES Methods in Hypersonic Flow Solutions**
Muslubaş E., EYİ S.
22nd AIAA Computational Fluid Dynamics Conference, Dallas, TX, 22 - 26 June 2015, vol.2015

XXXV. **Three Dimensional Flow Analysis of a Cavity-Based Scramjet Combustor**
Rouzbar R., EYİ S.
22nd AIAA Computational Fluid Dynamics Conference, Dallas, TX, 22 June 2105 - 26 June 2015, vol.2015

XXXVI. **Convergence Acceleration Using Convergence Error Estimation**
EYİ S.
22nd AIAA Computational Fluid Dynamics Conference, Dallas, TX, 22 - 26 June 2015, vol.2015

XXXVII. **Analysis of Hypersonic Nozzles with Newton and Preconditioned Newton-GMRES Methods**
Muslubaş E., EYİ S.
51st AIAA/SAE/ASEE Joint Propulsion Conference, Orlando, FL, 22 June 2105 - 26 May 2016, vol.2015

XXXVIII. **Three Dimensional Analysis of Hypersonic Flow Around Re-entry Vehicles Using Navier-Stokes Equations**
Özgün M., EYİ S.
7th International Conference on Recent Advances in Space Technologies, RAST 2015, 16 - 19 June 2015

XXXIX. **The Effects of Static Aeroelasticity on the Performance of Supersonic/Hypersonic Nozzles**
Duzel U., EYİ S.
44th AIAA Fluid Dynamics Conference, AIAA AVIATION Forum, Atlanta, Georgia, United States Of America, 16 - 20 June 2014, vol.2014

XL. **Analysis and adjoint design optimization of hypersonic blunt bodies**
Piskin T., EYİ S.
50th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and exhibit 2014, Ohio, United States Of America, 28 - 30 July 2014

XLI. **Analysis and design optimization of three dimensional nozzles**
Yildizlar B., EYİ S.
50th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and exhibit 2014, Ohio, United States Of America, 28 - 30 July 2014

XLII. **Comparison of newton and newton-GMRES methods for three dimensional supersonic nozzle design**
Yildizlar B., EYİ S.

32nd AIAA Applied Aerodynamics Conference 2014, Atlanta, GA, United States Of America, 16 - 20 June 2014

XLIII. **Analysis of hypersonic flow using three dimensional Navier-Stokes equations**
Özgün M., EYİ S.
50th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and exhibit 2014, Ohio, United States Of America, 28 - 30 July 2014

XLIV. **Static aeroelastic analysis of supersonic nozzles and performance response**
Duzel U., EYİ S.
50th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and exhibit 2014, Ohio, United States Of America, 28 - 30 July 2014

XLV. **Analysis and design optimization of blunt bodies in hypersonic flow**
Piskin T., EYİ S., Yumusak M.
32nd AIAA Applied Aerodynamics Conference 2014, Atlanta, GA, United States Of America, 16 - 20 June 2014

XLVI. **Three dimensional rocket nozzle design using adjoint method**
EYİ S., Yumusak M.
49th AIAA/ASME/SAE/ASEE Joint PropulsionConference, San Jose, CA, United States Of America, 14 - 17 July 2013

XLVII. **Aerothermodynamic design optimization in hypersonic flows**
EYİ S.
49th AIAA/ASME/SAE/ASEE Joint PropulsionConference, San Jose, CA, United States Of America, 14 - 17 July 2013

XLVIII. **Aerodynamic design optimization of three dimensional rocket nozzles using adjoint method**
EYİ S., Yumusak M.
21st AIAA Computational Fluid Dynamics Conference, San Diego, CA, United States Of America, 24 - 27 June 2013

XLIX. **Aerothermodynamic Shape Optimization ofHypersonic Blunt Bodies**
Yumusak M., EYİ S.
21st AIAA ComputationalFluid Dynamics Conference, 24 - 27 June 2013, vol.2013

L. **Convergence acceleration based on convergence error estimation**
EYİ S., Yumusak M.
21st AIAA Computational Fluid Dynamics Conference, San Diego, CA, United States Of America, 24 - 27 June 2013

LI. **Aerothermodynamic design optimization in hypersonic flows**
EYİ S.
49th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, JPC 2013, California, United States Of America, 14 - 17 July 2013

LII. **Three dimensional rocket nozzle design using adjoint method**
EYİ S., Yumusak M.
49th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, JPC 2013, California, United States Of America, 14 - 17 July 2013

LIII. **Design optimization in hypersonic flows**
EYİ S., Yumuşak M.
18th AIAA/3AF International Space Planes and Hypersonic Systems and Technologies Conference 2012, Tours, France, 24 - 28 September 2012

LIV. **Convergence Error Estimation and Convergence Acceleration in Iteratively Solved Problems**
EYİ S.
7th International Conference on CFD (ICCFD7), Big Island, Hawaii, United States Of America, 9 - 13 July 2012, vol.7

LV. **Three dimensional design optimization using analytical and numerical jacobians**
EYİ S., Ezertas A., Degirmenci M., Yumusak M.
20th AIAA Computational Fluid Dynamics Conference 2011, Honolulu, HI, United States Of America, 27 - 30 June 2011

LVI. **Design optimization in chemically reacting flows**
Yumuşak M., EYİ S.
20th AIAA Computational Fluid Dynamics Conference 2011, Honolulu, HI, United States Of America, 27 - 30 June 2011

LVII. **Finite-Difference Sensitivity Calculation in Iteratively Solved Problems**

EYİ S.
20th AIAA Computational Fluid Dynamics Conference 2011, Honolulu, HI, United States Of America, 27 - 30 June 2011

LVIII. **Performance Evaluation of the Numerical Flux Jacobians in Flow Solution and Aerodynamic Design Optimization**
Ezertas A., EYİ S.
6th International Conference on Computational Fluid Dynamics (ICCFD), St Petersburg, Russia, 12 - 16 July 2010, pp.241-246

LIX. **Design Optimization in Non-equilibrium Reacting Flows**
EYİ S., Ezertas A., Yumusak M.
6th International Conference on Computational Fluid Dynamics (ICCFD), St Petersburg, Russia, 12 - 16 July 2010, pp.247-248

LX. **Performances of Numerical and Analytical Jacobians in Flow and Sensitivity Analysis**
Ezertaş A. A., EYİ S.
19th AIAA Computational Fluid Dynamics, San-Antonio, Northern Mariana Islands, 22 - 25 June 2009, vol.2009

LXI. **Effects of the Jacobian evaluation on Newton's solution of the Euler equations**
Onur O., EYİ S.
17th AIAA Computational Fluid Dynamics Conference, Toronto, Canada, 6 - 09 June 2005

LXII. **Inverse design of compressor cascades on parallel computers**
Özhamam M., EYİ S.
40th AIAA Aerospace Sciences Meeting and Exhibit 2002, Reno, NV, United States Of America, 14 - 17 January 2002

LXIII. **Inverse design of compressor cascades**
Kaplan B., EYİ S.
39th Aerospace Sciences Meeting and Exhibit 2001, Reno, NV, United States Of America, 8 - 11 January 2001

LXIV. **Aerodynamic sensitivity analysis in inverse design**
Kocabiçak E., EYİ S.
8th Symposium on Multidisciplinary Analysis and Optimization 2000, Long Beach, CA, United States Of America, 6 - 08 September 2000

LXV. **Effects of sensitivity analysis on turbomachinery blade design**
Kocabiçak E., EYİ S.
35th Intersociety Energy Conversion Engineering Conference and Exhibit 2000, Las Vegas, NV, United States Of America, 24 - 28 July 2000

LXVI. **Turbomachinery blade design via optimization**
EYİ S., Lee K.
38th Aerospace Sciences Meeting and Exhibit 2000, Reno, NV, United States Of America, 10 - 13 January 2000

LXVII. **Effects of sensitivity analysis on airfoil design**
EYİ S., Lee K.
36th AIAA Aerospace Sciences Meeting and Exhibit, 1998, Nevada, United States Of America, 12 - 15 January 1998

LXVIII. **Transonic turbomachinery blade design using optimization**
EYİ S., Lee K.
35th Aerospace Sciences Meeting and Exhibit, 1997, Nevada, United States Of America, 6 - 09 January 1997

LXIX. **Multi-element high-lift design using the Navier-Stokes equations**
Eyi S., Chand K., Lee K., Rogers S., Kwak D.
Fluid Dynamics Conference, 1996, Louisiana, United States Of America, 17 - 20 June 1996, pp.1-11

LXX. **Efficiency improvement in sensitivity evaluation in aerodynamic shape optimization**
Eyi S., Lee K.
14th Applied Aerodynamics Conference, 1996, Louisiana, United States Of America, 17 - 20 June 1996, pp.1022-1031

LXXI. **Effects of sensitivity analysis on aerodynamic design optimization**
Eyi S., Lee K.
Proceedings of the 1995 ASME International Mechanical Congress and Exposition, San-Francisco, Costa Rica, 12 -

17 November 1995, vol.232, pp.1-8

LXXII. **High-lift design optimization using the Navier-Stokes equations**
EYİ S., Lee K. D., Rogers S. E.
33rd Aerospace Sciences Meeting and Exhibit, Reno,NV,U.S.A., 9 - 12 January 1995, vol.1995

LXXIII. **Inverse airfoil design using the Navier-stokes equations**
Eyi S., Lee K.
AIAA/AHS/ASEE Aerospace Design Conference, 1993, California, United States Of America, 16 - 19 February 1993

LXXIV. **Design efficiency evaluation for transonic airfoil optimization: A case for Navier-Stokes design**
Hager J., Eyi S., Lee K.
AIAA 23rd Fluid Dynamics, Plasmadynamics, and Lasers Conference, 1993, Florida, United States Of America, 6 - 09 July 1993

LXXV. **A multi-point optimization for transonic airfoil design**
Hager J., Eyi S., Lee K.
4th Symposium on Multidisciplinary Analysis and Optimization, 1992, Ohio, United States Of America, 21 - 23 September 1992, pp.13-20

LXXVI. **Transonic airfoil design by constrained optimization**
Lee K., Eyi S.
9th Applied Aerodynamics Conference, 1991, Maryland, United States Of America, 23 - 25 September 1991

Supported Projects

EYİ S., Project Supported by Higher Education Institutions, Kimysal Reaksiyonlu Aero-Termodinamik Akışlarda Jacobian-Free Newton-Krylov (JFNK) ve Adjoint Yöntemleri ile Tasarım Optimizasyon Yazılımı Geliştirilmesi, 2015 - Continues
EYİ S., TUBITAK Project, Hipersonik Akışlarda Çok Disiplinli Analiz ve Tasarım Optimizasyonu, 2012 - 2016
EYİ S., Project Supported by Higher Education Institutions, Çok Bloklu (multi-Block) Yapısal (structured) Ağ (grid) Sisteminde Adjoint Yöntemini Kullanarak Tasarım Optimizasyonu., 2011 - 2011

Mobility Activity

Research Scholarship Program, Post Doc, University of Michigan, United States Of America, 2017 - 2018
Research Scholarship Program, Post Doc, University of Michigan, United States Of America, 2017 - 2018

Metrics

Publication: 93
Citation (WoS): 133
Citation (Scopus): 225
H-Index (WoS): 7
H-Index (Scopus): 9

Scholarships

Doktora sonrası araştırma, TUBITAK, 2018 - 2018
Fulbright Program, 2017 - 2018

Non Academic Experience

METU
Department of Aerospace Engineering, University of Michigan, Ann Arbor, Michigan
METU
METU
University of Illinois at Urbana
University of İllinois at Urbana