

Prof. ZAFER DURSUNKAYA

Personal Information

Office Phone: [+90 312 210 5232](tel:+903122105232)

Email: refaz@metu.edu.tr

Web: <https://avesis.metu.edu.tr/refaz>

International Researcher IDs

ScholarID: gZgKcAMAAAAJ

ORCID: 0000-0003-3711-0361

Publons / Web Of Science ResearcherID: ABA-1545-2020

ScopusID: 56633887700

Yoksis Researcher ID: 8185

Education Information

Doctorate, Illinois Institute of Technology, Makina Mühendisliği, United States Of America 1984 - 1988

Postgraduate, Illinois Institute of Technology, Makina Mühendisliği, United States Of America 1982 - 1984

Undergraduate, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, Turkey 1977 - 1981

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Fourier series solution of moving boundary problems in finite domain, Illinois Institute of Technology, Mühendislik, Makina, 1988

Postgraduate, Diffusion-thermo and thermal-diffusion effects in natural convection heat transfer from a vertical wall, Illinois Institute of Technology, Mühendislik, Makina, 1984

Research Areas

Engineering and Technology

Academic and Administrative Experience

Middle East Technical University, Faculty of Engineering, 2006 - 2012

Middle East Technical University, Faculty of Engineering, 1997 - 2003

Advising Theses

Dursunkaya Z., Assessment of sintered wick heat pipe performance by modeling phase change in surface pores, Postgraduate, Ş.KAAN(Student), 2024

Dursunkaya Z., Development of an interferometric technique for measuring the profiles of thin liquid films, Doctorate, Y.ATA(Student), 2024

Dursunkaya Z., Assessment of the effect of vapor flow on the thermal performance of a flat grooved heat pipe, Postgraduate, B.DEREBAŞI(Student), 2023

DURSUNKAYA Z., Comprehensive modeling of heat and mass transport in a micropillar evaporator, Postgraduate, G.YUNCU(Student), 2022

Bayer Ö., Dursunkaya Z., Investigation of the effect of design parameters on vapor chamber heat transfer characteristic, Postgraduate, İ.KARAKAYA(Student), 2022

DURSUNKAYA Z., Effect of prescribed boundary conditions on the condenser behavior of grooved heat pipes, Postgraduate, A.POURABDOLLAH(Student), 2022

DURSUNKAYA Z., Numerical simulation of coalescence of micron-submicron sized droplets and thin films, Postgraduate, Y.BARIŞ(Student), 2021

DURSUNKAYA Z., MODELING GUIDED HEAT PIPE DESIGN METHODOLOGY AND EXPERIMENTAL VALIDATION FOR FLAT GROOVED HEAT PIPES, Doctorate, S.SAYGAN(Student), 2021

DURSUNKAYA Z., Performance analysis of grooved heat pipes using 3-D multi-channel thermal resistance network, Postgraduate, R.AYKUT(Student), 2021

Dursunkaya Z., Development of a CFD assisted 3-D modeling and analysis methodology for grooved heat pipe design and performance assessment, Doctorate, G.GÖKÇE(Student), 2020

Dursunkaya Z., Akkuş Y., A novel approach to condensation modeling at the fin top of a grooved heat pipe, Doctorate, O.AKDAĞ(Student), 2019

Dursunkaya Z., Phase change heat transfer from nano and micro size droplets on a non-flat substrate, Doctorate, M.REZAEIMOGHADDAM(Student), 2019

DURSUNKAYA Z., Design and construction of an interferometric setup for dynamic measurement of clearances inside plain bearings, Postgraduate, A.JAFARI(Student), 2017

DURSUNKAYA Z., Thermal performance characterization of flat grooved heat pipes, Postgraduate, H.ALIJANI(Student), 2017

DURSUNKAYA Z., Modeling of fluid-vapor interface in the condensation zone of a grooved heat pipe, Postgraduate, M.ALIPOUR(Student), 2017

Okutucu Özyurt H. T., Dursunkaya Z., An experimental and numerical investigation of warpage behavior of silicon substrates at cryogenic temperatures, Postgraduate, E.CAN(Student), 2016

Tarman I. H., Dursunkaya Z., Multi-dimensional modelling of evaporation in the micro region of a micro grooved heat pipe, Doctorate, Y.AKKUŞ(Student), 2015

DURSUNKAYA Z., Modeling and fabrication of silicon micro-grooved heat pipes, Postgraduate, S.TAZE(Student), 2015

DURSUNKAYA Z., Modeling of multidimensional heat transfer in a rectangular grooved heat pipe /, Doctorate, G.ODABAŞI(Student), 2014

DURSUNKAYA Z., İçten yanmalı motorlarda yağ kayıplarının deneysel incelenmesi, Postgraduate, A.SEZER(Student), 2010

DURSUNKAYA Z., Experimental investigation of an oil loss mechanism in internal combustion engines, Postgraduate, A.Sezer(Student), 2010

DURSUNKAYA Z., Internal ballistic design optimization of a solid rocket motor, Postgraduate, S.AÇIK(Student), 2010

DURSUNKAYA Z., Computer modeling of blowback oil consumption in internal combustion engines, Postgraduate, E.BİLGE(Student), 2009

DURSUNKAYA Z., Computer modeling of blowback oil consumption in internal engines, Postgraduate, E.Bilge(Student), 2009

DURSUNKAYA Z., Experimental and numerical investigation of sheet metal hydroforming (flexforming) process, Postgraduate, H.ALİ(Student), 2007

DURSUNKAYA Z., Investigation of the effect of oil groove in the performance of a compressor piston, Postgraduate, B.HACIOĞLU(Student), 2006

DURSUNKAYA Z., Analysis on development of incremental ring rolling process, Postgraduate, M.SÜLEYMAN(Student),

2006

DURSUNKAYA Z., Numerical investigation of solidification, Postgraduate, M.AHMET(Student), 2005

DURSUNKAYA Z., Numerical analysis of ablation process on a two dimensional external surface, Postgraduate, F.SERAP(Student), 2005

Özgen S., Dursunkaya Z., High speed viscous plane couette-poiseuille flow stability, Doctorate, A.ASLAN(Student), 2004

DURSUNKAYA Z., Elastohydrodynamic lubrication analysis and design of a journal bearing, Postgraduate, M.DUYAR(Student), 2002

DURSUNKAYA Z., Backflow oil transfer in internal combustion engines, Postgraduate, A.KARKAÇ(Student), 2002

DURSUNKAYA Z., Experimental investigation of oil accumulation in inter ring crevice volumes in internal combustion engines, Postgraduate, T.İÇÖZ(Student), 2001

DURSUNKAYA Z., Experimental investigation of oil accumulation inter ring crevice volumes in internal combustion engines, Postgraduate, T.İÇÖZ(Student), 2001

DURSUNKAYA Z., A Coordinate transformation technique for two dimensional solidification problems with a circular phase change interface, Postgraduate, G.ODABAŞI(Student), 1997

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Accelerated 3D CFD modeling of multichannel flat grooved heat pipes**
Gökçe G., Çetin B., DURSUNKAYA Z.
Energy, vol.305, 2024 (SCI-Expanded)
- II. **Elliptical pillars for the thermal performance enhancement of micro-structured evaporators**
Yuncu G., Akkus Y., DURSUNKAYA Z.
International Communications in Heat and Mass Transfer, vol.148, 2023 (SCI-Expanded)
- III. **Comprehensive three-dimensional hydrodynamic and thermal modeling of steady-state operation of a flat grooved heat pipe**
Gökçe G., Kurt C., Odabaşı G., DURSUNKAYA Z., Çetin B.
International Journal of Multiphase Flow, vol.160, 2023 (SCI-Expanded)
- IV. **Interplay of capillary and Marangoni flows in micropillar evaporation**
Yuncu G., Akkus Y., DURSUNKAYA Z.
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.184, 2023 (SCI-Expanded)
- V. **Capillary boosting for enhanced heat pipe performance through bifurcation of grooves: Numerical assessment and experimental validation**
Saygan S., Akkus Y., DURSUNKAYA Z., Cetin B.
International Communications in Heat and Mass Transfer, vol.137, 2022 (SCI-Expanded)
- VI. **FAST AND PREDICTIVE HEAT PIPE DESIGN AND ANALYSIS TOOLBOX: H-PAT**
SAYGAN S., AKKUS Y., DURSUNKAYA Z., ÇETİN B.
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.42, no.1, pp.138-156, 2022 (SCI-Expanded)
- VII. **Interplay of transport mechanisms during the evaporation of a pinned sessile water droplet**
Akdag O., Akkus Y., Cetin B., DURSUNKAYA Z.
PHYSICAL REVIEW FLUIDS, vol.6, no.7, 2021 (SCI-Expanded)
- VIII. **A theoretical framework for comprehensive modeling of steadily fed evaporating droplets and the validity of common assumptions**
Akkus Y., ÇETİN B., DURSUNKAYA Z.
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.158, 2020 (SCI-Expanded)
- IX. **The effect of surface morphology on the rate of phase change of micron and sub-micron sized 2-D droplets**
Rezaeimoghaddam M., Dursunkaya Z.
NANOSCALE AND MICROSCALE THERMOPHYSICAL ENGINEERING, vol.24, pp.184-200, 2020 (SCI-Expanded)
- X. **On the effect of structural forces on a condensing film profile near a fin-groove corner**

- Akdag O., Akkus Y., DURSUNKAYA Z.
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.116, 2020 (SCI-Expanded)
- XI. **The effect of disjoining pressure on the shape of condensing films in a fin-groove corner**
Akdag O., Akkus Y., DURSUNKAYA Z.
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.142, pp.357-365, 2019 (SCI-Expanded)
- XII. **Limitations of Matching Condensing Film Profile on a Micro Fin with the Groove: Critical Effect of Disjoining Pressure**
Alipour M., DURSUNKAYA Z.
NANOSCALE AND MICROSACLE THERMOPHYSICAL ENGINEERING, vol.23, no.4, pp.289-303, 2019 (SCI-Expanded)
- XIII. **Experimental Thermal Performance Characterization of Flat Grooved Heat Pipes**
Alijani H., ÇETİN B., Akkus Y., DURSUNKAYA Z.
HEAT TRANSFER ENGINEERING, vol.40, pp.784-793, 2019 (SCI-Expanded)
- XIV. **An Iterative Solution Approach to Coupled Heat and Mass Transfer in a Steadily Fed Evaporating Water Droplet**
Akkus Y., ÇETİN B., DURSUNKAYA Z.
JOURNAL OF HEAT TRANSFER-TRANSACTIONS OF THE ASME, vol.141, no.3, 2019 (SCI-Expanded)
- XV. **PERFORMANCE ASSESSMENT OF COMMERCIAL HEAT PIPES WITH SINTERED AND GROOVED WICKS UNDER NATURAL CONVECTION**
Atay A., Sariarslan B., Kuscu Y. F., Saygan S., Akkus Y., Gurer A. T., Cetin B., DURSUNKAYA Z.
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.39, no.2, pp.101-110, 2019 (SCI-Expanded)
- XVI. **Effect of design and operating parameters on the thermal performance of aluminum flat grooved heat pipes**
Alijani H., Cetin B., Akkuş Y., Dursunkaya Z.
APPLIED THERMAL ENGINEERING, vol.132, pp.174-187, 2018 (SCI-Expanded)
- XVII. **Two-dimensional computational modeling of thin film evaporation**
Akkus Y., Tarman H. I., Cetin B., Dursunkaya Z.
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.121, pp.237-248, 2017 (SCI-Expanded)
- XVIII. **A numerical algorithm to determine straightness error, surface roughness, and waviness measured using a fiber optic interferometer**
Yıldırım M., Okutucu-Ozyurt T., Dursunkaya Z.
OPTICS AND LASER TECHNOLOGY, vol.85, pp.19-29, 2016 (SCI-Expanded)
- XIX. **A new approach to thin film evaporation modeling**
Akkus Y., Dursunkaya Z.
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.101, pp.742-748, 2016 (SCI-Expanded)
- XX. **MODELING OF TWO-DIMENSIONAL SOLIDIFICATION OF A FINITE CYLINDER**
ODABAŞI G., DURSUNKAYA Z.
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.36, no.1, pp.61-68, 2016 (SCI-Expanded)
- XXI. **Generalized transient temperature behavior in induction heated workpieces**
OKMAN O., DURSUNKAYA Z., Tekkaya A. E.
JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol.209, pp.5932-5939, 2009 (SCI-Expanded)
- XXII. **Numerical analysis of ablation process on a two dimensional external surface**
Aykan F. S., DURSUNKAYA Z.
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.28, no.1, pp.43-49, 2008 (SCI-Expanded)
- XXIII. **Heat transfer effects on the stability of low speed plane Couette-Poiseuille flow**
Oezgen S., Dursunkaya Z., Ebrinc A. A.
HEAT AND MASS TRANSFER, vol.43, no.12, pp.1317-1328, 2007 (SCI-Expanded)
- XXIV. **Accuracy of the two-iteration spectral method for phase change problems**
Dursunkaya Z., NAİR S.

- APPLIED MATHEMATICAL MODELLING, vol.30, no.12, pp.1515-1524, 2006 (SCI-Expanded)
- XXV. **Experimental investigation of oil accumulation in second land of internal combustion engines**
İÇÖZ T., Dursunkaya Z.
JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER-TRANSACTIONS OF THE ASME, vol.127, no.1,
pp.206-212, 2005 (SCI-Expanded)
- XXVI. **Numerical solution of solidification in a square prism using an algebraic grid generation technique**
Dursunkaya Z., ODABAŞI G.
HEAT AND MASS TRANSFER, vol.40, pp.91-97, 2003 (SCI-Expanded)
- XXVII. **Solidification of a finite medium subject to a periodic variation of boundary temperature**
Dursunkaya Z., Nair S.
JOURNAL OF APPLIED MECHANICS-TRANSACTIONS OF THE ASME, vol.70, no.5, pp.633-637, 2003 (SCI-Expanded)
- XXVIII. **A MODEL OF PISTON SECONDARY MOTION AND ELASTOHYDRODYNAMIC SKIRT LUBRICATION**
DURSUNKAYA Z., KERİBAR R., GANAPATHY V.
JOURNAL OF TRIBOLOGY-TRANSACTIONS OF THE ASME, vol.116, no.4, pp.777-785, 1994 (SCI-Expanded)
- XXIX. **Diffusion thermo and Thermal diffusion Effects in Transient and Steady Natural Convection from a Vertical Surface**
DURSUNKAYA Z., WILLIAM MARTIN W.
International Journal Of Heat And Mass Transfer, vol.35, pp.2060-2065, 1992 (SCI-Expanded)
- XXX. **AN INTEGRATED MODEL OF RING PACK PERFORMANCE**
KERİBAR R., DURSUNKAYA Z., FLEMMING M.
JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER-TRANSACTIONS OF THE ASME, vol.113, no.3,
pp.382-389, 1991 (SCI-Expanded)
- XXXI. **A MOVING BOUNDARY-PROBLEM IN A FINITE DOMAIN**
DURSUNKAYA Z., NAIR S.
JOURNAL OF APPLIED MECHANICS-TRANSACTIONS OF THE ASME, vol.57, no.1, pp.50-56, 1990 (SCI-Expanded)

Articles Published in Other Journals

- I. **Eğitimde Kalite Yönetimine Bir Örnek ABET 2000 Akreditasyon Süreci**
ÖGEL Z. B., DURSUNKAYA Z.
Hacettepe Üniversitesi Eğitim Fakültesi Dergisi-Hacettepe University Journal Of Education, vol.20, pp.206-214, 2001 (Scopus)
- II. **A Model for Evaporative Consumption of Oil in Reciprocating Engine**
WAHİDUZZAMAN S., KERİBAR R., DURSUNKAYA Z., KELLY F.
SAE Transactions Journal of Fuels and Lubricants, vol.101, pp.1192-1200, 1992 (Peer-Reviewed Journal)
- III. **A Comprehensive Model of Piston Skirt Lubrication**
KERİBAR R., DURSUNKAYA Z.
SAE Transactions Journal of Engines, vol.101, pp.844-852, 1992 (Peer-Reviewed Journal)
- IV. **Simulation of Secondary Dynamics of Articulated and Conventional Piston Assemblies**
DURSUNKAYA Z., KERİBAR R.
SAE Transactions Journal of Engines, vol.101, pp.853-863, 1992 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Accelerated Solution Methodology for 3D Hydrodynamic and Thermal Modeling of Grooved Heat Pipes with Complex Geometries**
Gökçe G., Çetin B., DURSUNKAYA Z.
14th International Conference on Computational Heat and Mass Transfer, ICCHMT 2023, Düsseldorf, Germany, 4 - 08 September 2023, pp.668-677

- II. **Elliptic Micropillar Wick Evaporators for Thermal Management of High Flux Electronics**
Yuncu G., Akkus Y., DURSUNKAYA Z.
22nd InterSociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, ITherm 2023, Florida, United States Of America, 30 May - 02 June 2023, vol.2023-May
- III. **EFFECT OF LIQUID-VAPOR INTERACTION ON THE THERMAL PERFORMANCE OF A FLAT GROOVED HEAT PIPE**
DEREBAŞI B., Saygan S., Çetin B., DURSUNKAYA Z.
8th Thermal and Fluids Engineering Conference, TFEC 2023, Maryland, United States Of America, 26 - 29 March 2023, vol.2023-March, pp.33-36
- IV. **OLUKLU ISI BORULARINDA KURU ÇALIŞMA REJİMİNİN 3-BOYUTLU BİR MODEL İLE OLARAK İNCELENMESİ**
Gökçe G., ÇETİN B., DURSUNKAYA Z.
ULIBTK'21 23. Uluslararası Katılımlı Isı Bilimi ve Tekniği Kongresi, Gaziantep, Turkey, 8 - 10 September 2021
- V. **ISI BORUSU ANALİZ ARACI (H-PAT) İLE TİCARİ ISI BORULARININ BENZETİMLENMESİ**
Saygan S., AKKUŞ Y., ÇETİN B., DURSUNKAYA Z.
ULIBTK'21 23. Uluslararası Katılımlı Isı Bilimi ve Tekniği Kongresi, Gaziantep, Turkey, 8 - 10 September 2021
- VI. **COALESCENCE OF MICRON-SUBMICRON SIZED THIN FILMS**
ERKAN Y. B., DURSUNKAYA Z.
ULIBTK'21 23. Uluslararası Katılımlı Isı Bilimi ve Tekniği Kongresi, Gaziantep, Turkey, 8 - 10 September 2021
- VII. **İNCE SIVI FİMLERİN VE DAMLACIKLARININ YÜZEYLERİNİN FİBER OPTİK GİRİŞİMÖLÇER İLE ÖLÇÜMÜ İÇİN ÖZGÜN BİR YÖNTEM GELİŞTİRİLMESİ**
AĞARTAN Y. A., DURSUNKAYA Z.
ULIBTK'21 23. Uluslararası Katılımlı Isı Bilimi ve Tekniği Kongresi, Gaziantep, Turkey, 8 - 10 September 2021
- VIII. **ÇOK KANALLI DÜZ OLUKLU ISI BORULARININ ISIL PERFORMANS ANALİZİ**
Sezmen R. A., ÇETİN B., DURSUNKAYA Z.
ULIBTK'21 23. Uluslararası Katılımlı Isı Bilimi ve Tekniği Kongresi, Gaziantep, Turkey, 8 - 10 September 2021
- IX. **DRYOUT PERFORMANCE ASSESSMENT OF GROOVED HEAT PIPES USING A 3-D COMPUTATIONAL MODEL**
Gökçe G., ÇETİN B., DURSUNKAYA Z.
ATE-HEFAT 2021 15th International Conference Applied Thermal Engineering, Amsterdam, Netherlands, 25 July 2021
- X. **Experimental validation of the heat pipe evaluation software "Heat Pipe Analysis Toolbox (H-PAT)"**
Saygan S., AKKUŞ Y., ÇETİN B., DURSUNKAYA Z.
13th ICCHMT 2021, Paris, France, 18 May 2021
- XI. **PERFORMANCE OF A FLAT GROOVED HEAT PIPE WITH A LOCALIZED HEAT LOAD**
Sezmen R. A., ÇETİN B., DURSUNKAYA Z.
13th ICCHMT 2021, Paris, France, 18 May 2021
- XII. **MODELING THE EVAPORATION OF DRYING SESSILE DROPLETS WITH BUOYANCY DRIVEN INTERNAL CONVECTION**
Akdağ O., AKKUŞ Y., ÇETİN B., DURSUNKAYA Z.
13th ICCHMT 2021, Paris, France, 18 May 2021
- XIII. **Design, construction and commissioning of a flat grooved heat pipe with adjustable evaporator and condenser**
Saygan S., DURSUNKAYA Z.
22nd Thermal Science and Technology Congress, Kocaeli, Turkey, 11 - 14 September 2019
- XIV. **Kanatçık-kanal sistemindeki ayrılma basıncı-yoğuşma ilişkisinin boyutsuz parametrelerle incelenmesi**
AKDAĞ O., AKKUŞ Y., DURSUNKAYA Z.
22nd Thermal Science and Technology Congress, Kocaeli, Turkey, 11 - 14 September 2019
- XV. **Ticari HAD Programının İteratif Kullanımıyla Faz Değişimi Modellenmesi ve Dikdörtgen Kesitli Oluklu Bir Isı Borusunun Isıl Performansının Belirlenmesi**
Gökçe G., DURSUNKAYA Z.

- 22nd Thermal Science and Technology Congress, İzmit, 11 - 14 September 2019
- XVI. **Damlacık buharlaşması sırasında gerçekleşen eşzamanlı fiziksel mekanizmaların yinelemeli çözümü**
AKKUŞ Y., ÇETİN B., DURSUNKAYA Z.
22nd Thermal Science and Technology Congress, Kocaeli, Turkey, 11 - 14 September 2019
- XVII. **Thermal Performance Evaluation Methodology of Grooved Heat Pipes With Rectangular, Trapezoidal and Wedge Cross Sections**
Gökçe G., DURSUNKAYA Z.
16th UK Heat Transfer Conference, Nottingham, United Kingdom, 8 - 10 September 2019
- XVIII. **Disjoining Pressure Instigated Slope Break of a Condensing Film in a Fin-Groove Corner**
Akdağ O., Akkuş Y., DURSUNKAYA Z.
12th International Conference for Computational Heat Mass Momentum Transfer, Roma, Italy, 3 - 06 September 2019
- XIX. **Comparison of 1-D and 3-D Modeling Methodologies for Flat-Grooved Heat Pipes**
Gökçe G., Altunkaş O., ÇETİN B., DURSUNKAYA Z.
12th International Conference for Computational Heat Mass Momentum Transfer, Roma, 3 - 06 September 2019
- XX. **Thermal conduction and high heat dissipation from small volumes: Heat pipe applications**
DURSUNKAYA Z.
1st Workshop on TF-X Integrated Processing Unit Technologies, Kocaeli, Turkey, 11 - 13 December 2018
- XXI. **An Interferometric Apparatus for the Measurement of Oil Film Thickness in a Journal Bearing**
DURSUNKAYA Z., JAFARİ TABRİZİ A.
2018 STLE Tribology Frontiers Conference, Chicago, 28 - 31 October 2018
- XXII. **Oluklu Isı Borularındaki Akışkanlar Mekanığı ve Isı Transferinin Fiziğı**
DURSUNKAYA Z.
2018 Symposium on Advances in Thermal Fluid Sciences, İzmir, Turkey, 28 - 29 June 2018
- XXIII. **The Effect of Disjoining Pressure on the Condensing Film in a Flat Grooved Heat Pipe**
ALİPOUR M., DURSUNKAYA Z.
Joint 19th IHPC and 13th IHPS,, Pisa, Italy, 10 - 14 June 2018
- XXIV. **Experimental Investigation of Thermal Performance of a Silicon Flat Plate Grooved Heat Pipe with an integrated heater and cooler**
KURT C., ALİJANİ H., ÇETİN B., AKKUŞ Y., DURSUNKAYA Z.
ASME-ICNMM18, Dubrovnik, Croatia, 10 - 13 June 2018
- XXV. **Dışbükey Bir Köşedeki Sıvı Film Akışının Modellenmesi**
AKDAĞ O., AKKUŞ Y., DURSUNKAYA Z.
21. Ulusal Isı Bilimi Ve Tekniğı Kongresi, Turkey, 13 - 16 September 2017
- XXVI. **Mikro - Oluklu Isı Borusunun Yoğuşma Bölgesinin Kütle Korunumlu Modellenmesi**
HARMANCI İ. B., DURSUNKAYA Z.
21. Ulusal Isı Bilimi Ve Tekniğı Kongresi, Turkey, 13 - 16 September 2017
- XXVII. **Düz-oluklu Alüminyum Isı Borularının Isıl Performanslarının Deneysel Olarak İncelenmesi**
ALİJANVAND H. A., AKKUŞ Y., ÇETİN B., DURSUNKAYA Z.
21. Ulusal Isı Bilimi Ve Tekniğı Kongresi, Turkey, 13 - 16 September 2017
- XXVIII. **Sinterli Ve Oluklu Isı Borularının Kuruma Sınırlarının Deneysel Tespiti**
ATAY A., SARIARSLAN B., KUŞÇU Y., AKKUŞ Y., SAYGAN S., GÜRER A. T., ÇETİN B., DURSUNKAYA Z.
21. Ulusal Isı Bilimi Ve Tekniğı Kongresi, Turkey, 13 - 16 September 2017
- XXIX. **Investigation of evaporation from a sessile constant shape droplet**
AKKUŞ Y., ÇETİN B., DURSUNKAYA Z.
ASME International Conference On Nanochannels, Microchannels and Minichannels, 27 - 31 August 2017
- XXX. **Experimental Investigation of Thermal Performance of an Aluminum Flat-Grooved Heat Pipe**
ALJANVAD H., ÇETİN B., AKKUŞ Y., DURSUNKAYA Z.
ASME International Conference On Nanochannels, Microchannels and Minichannels, 27 - 31 August 2017
- XXXI. **MODELING OF EVAPORATION FROM A SESSILE CONSTANT SHAPE DROPLET**
Akkus Y., ÇETİN B., DURSUNKAYA Z.

15th ASME International Conference on Nanochannels, Microchannels, and Minichannels, Cambridge, Canada, 27 - 30 August 2017

- XXXII. **A model of liquid flow on the condensation fin top-groove corner of a micro-grooved heat pipe**
AKDAĞ O., AKKUŞ Y., DURSUNKAYA Z.
International Conference on Computational Heat, Mass and Momentum Transfer, 28 May - 01 June 2017
- XXXIII. **Condensation modeling on the fin top of a micro-grooved heat pipe**
ALİPOUR M., DURSUNKAYA Z.
26th canadian Congress of Applied Mechanics, 29 May - 01 June 2017
- XXXIV. **3D modeling of a micro-grooved heat pipe**
ALİJANVAD H., ÇETİN B., AKKUŞ Y., DURSUNKAYA Z.
International Conference on Computational Heat, Mass and Momentum Transfer, 28 May - 01 June 2017
- XXXV. **Experimental Investigation of Micro Grooved Heat Pipes on Silicon and Aluminum**
ALİJANI H., ÇETİN B., DURSUNKAYA Z.
5th Micro and Nano Flows Conference, Milan, Italy, 11 - 14 September 2016
- XXXVI. **Thin Film Evaporation in Grooved Heat Pipes**
AKKUŞ Y., DURSUNKAYA Z.
International Conference of Microfluidics, Nanofluidics and Lab-on-a-Chip, Dalian, China, 10 - 12 June 2016
- XXXVII. **INTERNAL BALLISTIC DESIGN OPTIMIZATION OF SOLID ROCKET MOTORSWITH DIRECT SEARCH METHOD**
AÇIK S., DURSUNKAYA Z., TOKER A.
Space Propulsion 2016, ROMA, Italy, 2 - 06 June 2016
- XXXVIII. **Investigation of warpage behavior of single crystal silicon on a silicon Adhesive ceramic integrated structure at cryogenic temperatures**
BALOĞLU C., OKUTUCU ÖZYURT H. T., DURSUNKAYA Z.
IMAPS 12th International Conference and Exhibition on Device Packaging, Fountain Hills, United States Of America, 14 - 17 March 2016
- XXXIX. **INVESTIGATION OF EVAPORATION MODELS IN THE MICRO REGION OF GROOVED HEAT PIPES AND PROPOSAL OF A NEW SOLUTION PROCEDURE**
AKKUŞ Y., DURSUNKAYA Z.
ULIBTK'15 20. Ulusal Isı Bilimi ve Tekniği Kongresi, Balıkesir, Turkey, 2 - 05 September 2015
- XL. **MİKRO OLUKLU ISI BORUSU ÜRETİMİ İÇİN FARKLI MİKRO ÜRETİM YÖNTEMLERİNİN İRDELENMESİ**
SERDAR T., ÇETİN B., Yılmaz M., DURSUNKAYA Z.
ULIBTK'15 20. Ulusal Isı Bilimi ve Tekniği Kongresi, Balıkesir, Turkey, 2 - 05 September 2015
- XLI. **DİKDÖRTGEN KESİTLİ ISI BORUSU İÇİN ÜÇ BOYUTLU ISI TRANSFER ANALİZİ**
GÜLNİHAL O., DURSUNKAYA Z.
ULIBTK'15 20. Ulusal Isı Bilimi ve Tekniği Kongresi, Balıkesir, Turkey, 2 - 05 September 2015
- XLII. **Mikroelektronik Aygıtların Düşük Sıcaklıkta Şekil Değiştirmelerinin İncelenmesi**
EYÜP CAN B., OKUTUCU ÖZYURT H. T., DURSUNKAYA Z.
ULIBTK'15 20. Ulusal Isı Bilimi ve Tekniği Kongresi, Balıkesir, Turkey, 2 - 05 September 2015
- XLIII. **Three-Dimensional Grain Design Optimization of Solid Rocket Motors**
Yucel O., Acik S., Toker K. A., DURSUNKAYA Z., AKSEL M. H.
7th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 16 - 19 June 2015, pp.471-476
- XLIV. **Three Dimensional Grain Design Optimizationof Solid Rocket Motors**
YÜCEL O., SEVDA A., ATILGAN T., DURSUNKAYA Z., AKSEL M. H.
RAST 2015, 16 - 19 June 2015
- XLV. **MULTI PHYSICS MODELING OF SILICON BASEDMICRO GROOVED HEAT PIPE**
SERDAR T., ÇETİN B., DURSUNKAYA Z.
8th ICCHMT,, 25 - 28 May 2015
- XLVI. **İçten Yanmalı Motorlardaki Gaz Geri Akışıyla Yağ Kaybının İncelenmesi**
Bilge E., DURSUNKAYA Z.

19. Ulusal Isı Bilimi ve Tekniği Kongresi, Samsun, Turkey, 9 - 12 September 2013
- XLVII. **AN INTERFEROMETRIC TECHNIQUE FOR MEASURING MICRON LEVEL CLEARANCES FILLED WITH A LUBRICANT**
Yildirim M., DURSUNKAYA Z., Okutucu T.
STLE/ASME International Joint Tribology Conference, San-Francisco, Costa Rica, 17 - 20 October 2010, pp.167-169
- XLVIII. **Effect of Surface Texture on Compressor Piston Lubrication**
Hacıoğlu B., DURSUNKAYA Z.
International Compressor Engineering Conference at Purdue, West Lafayette, United States Of America, 12 - 15 July 2010
- XLIX. **DEVELOPMENT OF AN INTERFEROMETRIC TECHNIQUE TO BE USED IN MEASURING MICRON LEVEL CLEARANCES FILLED WITH A LUBRICANT**
Yildirim M., DURSUNKAYA Z., Okutucu T.
ASME/STLE International Joint Tribology Conference, Tennessee, United States Of America, 19 - 21 October 2009, pp.151-153
- L. **Experimental Investigation Micron Level Clearances Using Fiber Optic Interferometry**
Yıldırım M., OKUTUCU ÖZYURT H. T., DURSUNKAYA Z.
11th International Conference on Tribology, Belgrade, Serbia, 13 - 15 May 2009
- LI. **Effect of Oil Feed Groove on Compressor Piston Lubrication**
Hacıoğlu B., DURSUNKAYA Z.
19th International Compressor Engineering Conference at Purdue, West Lafayette, United States Of America, 14 - 17 July 2008
- LII. **İki Boyutlu Dış Yüzeylerde Isıl Aşınma Analizi**
Aykan F. S., DURSUNKAYA Z.
16. Ulusal Isı Bilimi ve Tekniği Kongresi, Kayseri, Turkey, 30 May - 02 June 2007
- LIII. **High Speed Couette—Poiseuille Flow Stability in Reverse Flow Conditions**
Ebrinç A. A., ÖZGEN S., DURSUNKAYA Z.
4th IASME/WSEAS International Conference on Fluid Mechanics and Aerodynamics, Girit, Greece, 21 - 23 August 2006
- LIV. **Design Improvement Based on Wear of a Compressor Bearing Using an Elastohydrodynamic Lubrication Mode**
Duyar M., DURSUNKAYA Z.
International Compressor Engineering Conference at Purdue, West Lafayette, United States Of America, 17 - 20 July 2006
- LV. **Isı Transferinin Couette-Poiseuille Akışının Kararlılığına Etkisi**
ÖZGEN S., Ebrinç A. A., DURSUNKAYA Z.
15. Ulusal Isı Bilimi ve Tekniği Kongresi, Trabzon, Turkey, 7 - 09 September 2005
- LVI. **Heat Transfer Effects on the Stability of Low-speed Couette—Poiseuille Flow**
ÖZGEN S., DURSUNKAYA Z., Ebrinç A. A.
Third Ankara International Aerospace Conference, Ankara, Turkey, 22 - 25 August 2005
- LVII. **High Speed Viscous Plane Couette—Poiseuille Flow Stability**
Ebrinç A. A., DURSUNKAYA Z., ÖZGEN S.
Third Ankara International Aerospace Conference, Ankara, Turkey, 22 - 25 August 2005
- LVIII. **ABET 2000 Süreci: Birimin Özgörevi Doğrultusunda Eğitim Programı Tasarımı**
DURSUNKAYA Z.
Elektrik, Elektronik, Bilgisayar Mühendislik Eğitimi 1. Ulusal Sempozyumu, Ankara, Turkey, 30 April - 05 May 2003, pp.22-23
- LIX. **Design Improvement of a Compressor Bearing Using an Elastohydrodynamic Lubrication Model**
Duyar M., DURSUNKAYA Z.
International Compressor Engineering Conference at Purdue, West Lafayette, United States Of America, 16 - 19 July 2002
- LX. **Oil Loss Mechanisms due to In-cylinder Components**

- DURSUNKAYA Z.
International Conference on Automotive Technology, ICAT 2000, İstanbul, Turkey, 19 - 20 October 2000
- LXI. **Preparing students for the international environment of 21st century in Middle East Technical University**
DURSUNKAYA Z., ÜÇTUĞ M. Y.
International Millennial Conference on Engineering Education, Manila, Philippines, 27 - 29 January 2000
- LXII. **Analysis of Piston Slap Using an Elastohydrodynamic Piston Lubrication Model**
DURSUNKAYA Z.
International Conference on Lubrication Techniques, İstanbul, Turkey, 27 - 28 October 1999
- LXIII. **Mühendislik Programlarının Akreditasyonunda Yeni Yaklaşımlar**
DURSUNKAYA Z.
TMMOB Mühendislik Mimarlık Eğitimi Sempozyumu, İstanbul, Turkey, 22 - 24 October 1999, vol.200
- LXIV. **An Integrated Design Analysis Methodology to Address Piston Tribological Issues**
Keribar R., DURSUNKAYA Z., Venkatesh G.
SAE International Congress and Exhibition, Detroit, United States Of America, 1 - 05 March 1993
- LXV. **Experimental and Numerical Investigation of Ring Dynamics and Blowby in a Diesel Engine**
DURSUNKAYA Z., Keribar R., Richardson D. E.
SAE International Congress and Exhibition, Detroit, United States Of America, 1 - 05 March 1993
- LXVI. **A Model of Piston Secondary Motion and Elastohydrodynamic Skirt Lubrication**
DURSUNKAYA Z., Keribar R., Ganapathy V.
ASME Energy Sources and Technology Conference and Exhibition, Houston, United States Of America, 31 January - 04 February 1993
- LXVII. **Experimental and numerical investigation of inter-ring gas pressures and blowby in a diesel engine**
Dursunkaya Z., Keribar R., Richardson D. E.
International Congress and Exposition, Dearborn, MI, United States Of America, 1 - 05 March 1993
- LXVIII. **Model of piston secondary motion and elastohydrodynamic skirt lubrication**
Dursunkaya Z., Keribar R., Ganapathy V.
Energy-Sources Technology Conference and Exhibition, Houston, TX, USA, 31 January - 04 February 1993, pp.1-11
- LXIX. **Modeling of piston secondary dynamics and tribology**
Keribar R., Dursunkaya Z.
Proceedings of the Annual Automotive Technology Development Contractors' Coordination Meeting, Dearborn, MI, USA, 28 - 31 October 1991, pp.657-677
- LXX. **A model for evaporative consumption of lubricating oil in reciprocating engines**
Wahiduzzaman S., Keribar R., Dursunkaya Z., Kelley F. A.
International Fuels and Lubricants Meeting and Exposition, San Francisco, CA, United States Of America, 19 - 22 October 1992
- LXXI. **Modeling of Piston Secondary Dynamics and Tribology**
Keribar R., DURSUNKAYA Z.
Annual Automotive Technology Development Contractors'xx Coordination Meeting, Dearborn, United States Of America, 01 May 1991
- LXXII. **Integrated modeling of ring pack performance**
Keribar R., Dursunkaya Z., Flemming M. F.
Proceedings of the Annual Automotive Technology Development Contractors' Meeting, Dearborn, MI, USA, 22 - 25 October 1990, pp.353-366
- LXXIII. **An Integrated Model of Ring Pack Performance**
Keribar R., DURSUNKAYA Z., Flemming M.
12th Annual Fall Technical Conference of the ASME Internal Combustion Engine Division, Rockford, IL, United States Of America, 7 - 10 October 1990, vol.13, pp.103-112
- LXXIV. **Integrated Modeling of Ring Pack Performance**
Keribar R., DURSUNKAYA Z.
Annual Automotive Technology Development Contractors'xx Meeting, Dearborn, United States Of America, 03 May

Supported Projects

DURSUNKAYA Z., JAFARI TABRIZI A., Project Supported by Higher Education Institutions, Hareket halindeki bir pistonda mikron altı piston-silindir aralıklarının girişimölçer kullanılarak ölçülmesi, 2017 - 2019
DURSUNKAYA Z., TUBITAK Project, Yüksek ısı akılı elektronik uygulamaları için mikro oluklu ısı borularının geliştirilmesi ve üretimi, 2014 - 2017

Activities in Scientific Journals

Isı Bilimi ve Tekniği Dergisi, First Editor, 2017 - Continues

Metrics

Publication: 109
Citation (WoS): 328
Citation (Scopus): 661
H-Index (WoS): 8
H-Index (Scopus): 12

Non Academic Experience

METU
METU
METU
METU
Ricardo North America
Illinois Institute of Technology
Illinois Institute of Technology
METU