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Education

Doctorate, Fen, Matematik, United Kingdom 1994 - 1998

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Doktora Tezi, Hacettepe niversitesi, Fen Fakltesi, Matematik Blm, 1998

Research Areas

Mathematics, Computer Science, Differential Equations, Approximations and Expansions, Natural Sciences

Academic and Administrative Experience

Hacettepe niversitesi, Fen Fakltesi, Matematik Blm, 2003 - 2006

Hacettepe niversitesi, Fen Fakltesi, Matematik Blm, 2001 - 2004

Hacettepe niversitesi, Fen Fakltesi, Matematik Blm, 1999 - 2004

Supervised Theses

TRKYILMAZOĐLU M., Dnen akıřkanlar ve bazı uygulamaları, Postgraduate, P.řENEL(Student), 2012

TRKYILMAZOĐLU M., Sıkıřtırılabilir 3-boyutlu dnen-disk akıřındaki kararsızlık mekanizmaları, Doctorate,

N.UYGUN(Student), 2006

Journal articles indexed in SCI, SSCI, and AHCI

1. Long wavelength analysis amendment on the cilia beating assisted peristalsis in a tube
TRKYILMAZOĐLU M.

THEORETICAL AND COMPUTATIONAL FLUID DYNAMICS, vol.39, no.1, 2025 (SCI-Expanded)

- II. **Rheology of Bingham viscoplastic flow triggered by a rotating and radially stretching disk**
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INTERNATIONAL JOURNAL OF NUMERICAL METHODS FOR HEAT & FLUID FLOW, no.2, pp.847-863, 2025 (SCI-Expanded)
- III. **Exact momentum layer and thermal field solutions for the fluid flow due to a moving/deforming Riga plate**
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INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.208, 2025 (SCI-Expanded)
- IV. **Slip flow between corotating disks with heat transfer**
TÜRKYILMAZOĞLU M.
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- V. **The operational matrices methods for solving the Poisson equation with nonlocal boundary conditions**
Enadi M. O., AL-Jawary M. A., TÜRKYILMAZOĞLU M.
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- VI. **Fluid flow between two active**
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- VII. **Soret and Dufour effects for unsteady flow with shapes and $(\text{Cu}+\text{Fe})_{3/4}\text{O}_{4/4}$ /(ethelene-glycol plus methanol) between two stretchable rotating disks**
Rahman M., TÜRKYILMAZOĞLU M., Mushtaq Z.
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- VIII. **Two Models on the Unsteady Heat and Fluid Flow Induced by Stretching or Shrinking Sheets and Novel Time-Dependent Solutions**
TÜRKYILMAZOĞLU M.
ASME JOURNAL OF HEAT AND MASS TRANSFER, vol.146, no.10, 2024 (SCI-Expanded)
- IX. **Evidence of stretching/moving sheet-triggered nonlinear similarity flows: atomization and electrospinning with/without air resistance**
TÜRKYILMAZOĞLU M.
INTERNATIONAL JOURNAL OF NUMERICAL METHODS FOR HEAT & FLUID FLOW, vol.34, no.9, pp.3598-3614, 2024 (SCI-Expanded)
- X. **Fluid motion in a cavity driven by a four-sided moving lid with uniform velocity**
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EUROPEAN JOURNAL OF MECHANICS B-FLUIDS, vol.107, pp.67-79, 2024 (SCI-Expanded)
- XI. **Buckling phenomenon of vertical beam/column of variable density carrying a top mass**
TÜRKYILMAZOĞLU M.
JOURNAL OF ENGINEERING MATHEMATICS, vol.147, no.1, 2024 (SCI-Expanded)
- XII. **Uniformly Loaded Logarithmic Beam Mode with Spatially Varying Flexural Rigidity**
TÜRKYILMAZOĞLU M.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, 2024 (SCI-Expanded)
- XIII. **Corrections to long wavelength approximation of peristalsis viscous fluid flow within a wavy channel**
TÜRKYILMAZOĞLU M.
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- XIV. **Flow and heat transfer in annuli owing to inner shrinking and outer stationary cylinder**
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- XV. **Darcy–Brinkman porous medium for dusty fluid flow with steady boundary layer flow in the presence of slip effect**
Rahman M., Waheed H., TÜRKYILMAZOĞLU M., Siddiqui M. S.
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- XVI. **Unsteady Fluid Flow in a Darcy–Brinkman Porous Medium with Slip Effect and Porous Dissipation**
Rahman M., Waheed H., TÜRKYILMAZOĞLU M., Siddiqui M. S.
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- XVII. **Liquid Vortex Formation in a Swirling Container Considering Fractional Time Derivative of Caputo**
TÜRKYILMAZOĞLU M., Alofi A. S.
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- XVIII. **Effects of multiple shapes for steady flow with transformer oil+Fe₃O₄+TiO₂ between two stretchable rotating disks**
Rahman M., TÜRKYILMAZOĞLU M., Mushtaq Z.
Applied Mathematics and Mechanics (English Edition), vol.45, no.2, pp.373-388, 2024 (SCI-Expanded)
- XIX. **RELIABLE COMPUTATIONAL METHODS FOR SOLVING JEFFERY-HAMEL FLOW PROBLEM BASED ON POLYNOMIAL FUNCTION SPACES**
Salih O., TÜRKYILMAZOĞLU M., Al-Jawary M.
Applied and Computational Mathematics, vol.23, no.1, pp.70-82, 2024 (SCI-Expanded)
- XX. **Generalized vortex flow of nanoparticle shapes over a permeable disc surface with generalized slip conditions**
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- XXI. **Film Flow of Nano-Micropolar Fluid with Dissipation Effect**
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CMES-COMPUTER MODELING IN ENGINEERING & SCIENCES, vol.140, no.3, pp.2487-2512, 2024 (SCI-Expanded)
- XXII. **Generalized mean state of the isothermal Darcy–Benard problem and its instability onset**
TÜRKYILMAZOĞLU M., Duraihem F. Z.
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- XXIII. **Advective flow in a magnetized layer of fluid between hydro-thermal slippery parallel walls**
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Archive of Applied Mechanics, vol.93, no.12, pp.4351-4360, 2023 (SCI-Expanded)
- XXIV. **On heat transfer with unsteady MHD nanofluid von Karman flow with uniform suction**
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Pramana - Journal of Physics, vol.97, no.4, 2023 (SCI-Expanded)
- XXV. **Darcy–Benard convection through a uniformly permeable porous slab**
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Communications in Nonlinear Science and Numerical Simulation, vol.125, 2023 (SCI-Expanded)
- XXVI. **Impact of multiple shapes on Al₂O₃–Cu/ H₂O–C₂H₆O₂ towards a permeable surface of cylinder**
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- XXVII. **Hyperthermia therapy of cancerous tumor sitting in breast via analytical fractional model**
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Computers in Biology and Medicine, vol.164, 2023 (SCI-Expanded)
- XXVIII. **A highly accurate peak time formula of epidemic outbreak from the SIR model**
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Chinese Journal of Physics, vol.84, pp.39-50, 2023 (SCI-Expanded)
- XXIX. **Fully developed flow in a long triangular channel under an applied magnetic field**
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- XXX. **A Two-Parameter Family of Basic State in Porous Media Leading to Darcy–Bénard Convection**
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Transport in Porous Media, vol.148, no.3, pp.519-533, 2023 (SCI-Expanded)

- XXXI. **Towards an approximate solution of highly viscous electro-osmotic flows in inclined Channel: Applications in petroleum and gas engineering**
Nazeer M., Hussain F., TÜRKYILMAZOĞLU M., Ali Z.
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- XXXIII. **Uniform magnetic field impact on absolute versus convective onset of Darcy–Benard convection with horizontal throughflow**
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International Journal of Numerical Methods for Heat and Fluid Flow, vol.33, no.8, pp.3056-3070, 2023 (SCI-Expanded)
- XXXIV. **The instability onset of generalized isoflux mean flow using Brinkman-Darcy-Bénard model in a fluid saturated porous channel**
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- XXXV. **The flow and heat in the conical region of a rotating cone and an expanding disk**
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International Journal of Numerical Methods for Heat and Fluid Flow, vol.33, no.6, pp.2181-2197, 2023 (SCI-Expanded)
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TÜRKYILMAZOĞLU M., Duraihem F. Z.
Micromachines, vol.14, no.4, 2023 (SCI-Expanded)
- XXXVII. **Three dimensional viscous flow due to a squeezing porous slider**
TÜRKYILMAZOĞLU M.
European Journal of Mechanics, B/Fluids, vol.98, pp.253-259, 2023 (SCI-Expanded)
- XXXVIII. **Transient and passage to steady state in fluid flow and heat transfer within fractional models**
TÜRKYILMAZOĞLU M.
INTERNATIONAL JOURNAL OF NUMERICAL METHODS FOR HEAT & FLUID FLOW, vol.33, pp.728-750, 2023 (SCI-Expanded)
- XXXIX. **Numerical solution of Al₂O₃-H₂O with shape effects and unsteady flow over a solid rotating disk**
Rahman M., TÜRKYILMAZOĞLU M., Bilal M.
International Journal of Modern Physics B, 2023 (SCI-Expanded)
- XL. **Fractional models of falling object with linear and quadratic frictional forces considering Caputo derivative**
TÜRKYILMAZOĞLU M., Altanji M.
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- XLI. **Prescribed Temperature Profiles of Longitudinal Convective-Radiative Fins Subject to Axially Distributed Thermal Conductivities**
TÜRKYILMAZOĞLU M.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.47, no.12, pp.15689-15703, 2022 (SCI-Expanded)
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EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, vol.231, no.18-20, pp.3591-3601, 2022 (SCI-Expanded)
- XLIII. **Radially expanding/contracting and rotating sphere with suction**
TÜRKYILMAZOĞLU M.
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- XLIV. **Novel approximate solution for fractional differential equations by the optimal variational iteration method**

Ibraheem G. H., TÜRKYILMAZOĞLU M.

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- XLV. **Lid-Driven Butterfly Cavity for a Controllable Viscous Flow**
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JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME, vol.144, no.9, 2022 (SCI-Expanded)
- XLVI. **Unsteady three-dimensional magnetohydrodynamics flow of nanofluids over a decelerated rotating disk with uniform suction**
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- XLVII. **A restricted epidemic SIR model with elementary solutions**
TÜRKYILMAZOĞLU M.
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- XLVIII. **Driven flow motion by a dually moving lid of a square cavity**
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- XLIX. **An extended epidemic model with vaccination: Weak-immune SIRVI**
TÜRKYILMAZOĞLU M.
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- L. **Exponential nonuniform wall heating of a square cavity and natural convection**
TÜRKYILMAZOĞLU M.
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- LI. **Flow and heat over a rotating disk subject to a uniform horizontal magnetic field**
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ZEITSCHRIFT FÜR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, vol.77, pp.329-337, 2022 (SCI-Expanded)
- LII. **Asymptotic Suction/Injection Flow Induced by a Uniform Magnetohydrodynamics Free Stream Couple Stress Fluid Over a Flat Plate**
TÜRKYILMAZOĞLU M.
JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME, vol.144, no.3, 2022 (SCI-Expanded)
- LIIL. **Slit flow and thermal analysis of micropolar fluids in a symmetric channel with dynamic and permeable**
Siddiqui A. A., TÜRKYILMAZOĞLU M.
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.132, 2022 (SCI-Expanded)
- LIV. **Thermal performance of optimum exponential fin profiles subjected to a temperature jump**
TÜRKYILMAZOĞLU M.
INTERNATIONAL JOURNAL OF NUMERICAL METHODS FOR HEAT & FLUID FLOW, vol.32, no.3, pp.1002-1011, 2022 (SCI-Expanded)
- LV. **MULTIPLE EXACT SOLUTIONS OF FREE CONVECTION FLOWS IN SATURATED POROUS MEDIA WITH VARIABLE HEAT FLUX**
TÜRKYILMAZOĞLU M.
JOURNAL OF POROUS MEDIA, vol.25, no.6, pp.53-63, 2022 (SCI-Expanded)
- LVI. **An Efficient Computational Method for Differential Equations of Fractional Type**
TÜRKYILMAZOĞLU M.
CMES-COMPUTER MODELING IN ENGINEERING & SCIENCES, vol.133, no.1, pp.47-65, 2022 (SCI-Expanded)
- LVII. **Maximum wave run-up over beaches of convex/concave bottom profiles**
TÜRKYILMAZOĞLU M.
CONTINENTAL SHELF RESEARCH, vol.232, 2022 (SCI-Expanded)
- LVIII. **Explicit formulae for the peak time of an epidemic from the SIR model. Which approximant to use?**
Kroeger M., TÜRKYILMAZOĞLU M., Schlickeiser R.
PHYSICA D-NONLINEAR PHENOMENA, vol.425, 2021 (SCI-Expanded)
- LIX. **Heat absorption due to falling film with imposed uniform mass fraction at the wall**

TÜRKYILMAZOĞLU M.

INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.177, 2021 (SCI-Expanded)

- LX. **Heat Transfer Enhancement Feature of the Non-Fourier Cattaneo-Christov Heat Flux Model**
TÜRKYILMAZOĞLU M.
JOURNAL OF HEAT TRANSFER-TRANSACTIONS OF THE ASME, vol.143, no.9, 2021 (SCI-Expanded)
- LXI. **An analytic parametric study of rounded laser pulse heating**
TÜRKYILMAZOĞLU M.
OPTIK, vol.240, 2021 (SCI-Expanded)
- LXII. **Explicit formulae for the peak time of an epidemic from the SIR model**
TÜRKYILMAZOĞLU M.
PHYSICA D-NONLINEAR PHENOMENA, vol.422, 2021 (SCI-Expanded)
- LXIII. **Stagnation-point flow and heat transfer over stretchable plates and cylinders with an oncoming flow: Exact solutions**
TÜRKYILMAZOĞLU M.
CHEMICAL ENGINEERING SCIENCE, vol.238, 2021 (SCI-Expanded)
- LXIV. **Heat transport in shear-driven flow with axial conduction**
TÜRKYILMAZOĞLU M.
JOURNAL OF THE TAIWAN INSTITUTE OF CHEMICAL ENGINEERS, vol.123, pp.96-103, 2021 (SCI-Expanded)
- LXV. **Exact solutions concerning momentum and thermal fields induced by a long circular cylinder**
TÜRKYILMAZOĞLU M.
EUROPEAN PHYSICAL JOURNAL PLUS, vol.136, no.5, 2021 (SCI-Expanded)
- LXVI. **On the transparent effects of Buongiorno nanofluid model on heat and mass transfer**
TÜRKYILMAZOĞLU M.
EUROPEAN PHYSICAL JOURNAL PLUS, vol.136, no.4, 2021 (SCI-Expanded)
- LXVII. **Threshold for the generalized Non-Fourier heat flux model: Universal closed form analytic solution**
Jafarimoghaddam A., TÜRKYILMAZOĞLU M., Pop I.
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- LXVIII. **Complete theory of the elastic wall jet: A new flow geometry with revisited two-phase nanofluids**
Jafarimoghaddam A., TÜRKYILMAZOĞLU M., Rocca A. V., Pop I.
EUROPEAN JOURNAL OF MECHANICS B-FLUIDS, vol.86, pp.25-36, 2021 (SCI-Expanded)
- LXIX. **Magnetohydrodynamic Moving Liquid Plug Within a Microchannel: Analytical Solutions**
TÜRKYILMAZOĞLU M.
JOURNAL OF BIOMECHANICAL ENGINEERING-TRANSACTIONS OF THE ASME, vol.143, no.1, 2021 (SCI-Expanded)
- LXX. **Nonlinear Problems via a Convergence Accelerated Decomposition Method of Adomian**
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CMES-COMPUTER MODELING IN ENGINEERING & SCIENCES, vol.127, no.1, pp.1-22, 2021 (SCI-Expanded)
- LXXI. **On the fluid flow and heat transfer between a cone and a disk both stationary or rotating**
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- LXXII. **Nanoliquid film flow due to a moving substrate and heat transfer**
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- LXXIII. **An optimum profile of a special pin fin: full solutions**
TÜRKYILMAZOĞLU M.
INTERNATIONAL JOURNAL OF NUMERICAL METHODS FOR HEAT & FLUID FLOW, vol.30, no.11, pp.4945-4954, 2020 (SCI-Expanded)
- LXXIV. **Velocity Slip and Entropy Generation Phenomena in Thermal Transport Through Metallic Porous Channel**
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- LXXV. **Exact and approximate solutions to projectile motion in air incorporating Magnus effect**

- TÜRKYILMAZOĞLU M., Altundag T.
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- LXXVI. **Single phase nanofluids in fluid mechanics and their hydrodynamic linear stability analysis**
TÜRKYILMAZOĞLU M.
COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, vol.187, 2020 (SCI-Expanded)
- LXXVII. **Natural convection in the ferrofluid enclosed in a porous and permeable cavity**
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- LXXVIII. **Analytical and stability analysis of MHD flow past a nonlinearly deforming vertical surface in Carbon Nanotubes**
Anuar N. S., Bachok N., TÜRKYILMAZOĞLU M., Arifin N. M., Rosali H.
ALEXANDRIA ENGINEERING JOURNAL, vol.59, no.1, pp.497-507, 2020 (SCI-Expanded)
- LXXIX. **A simple algorithm for high order Newton iteration formulae and some new variants**
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HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.49, no.1, pp.425-438, 2020 (SCI-Expanded)
- LXXX. **Cooling of Particulate Solids and Fluid in a Moving Bed Heat Exchanger**
TÜRKYILMAZOĞLU M.
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- LXXXI. **Fully developed slip flow in a concentric annuli via single and dual phase nanofluids models**
TÜRKYILMAZOĞLU M.
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- LXXXII. **Free and circular jets cooled by single phase nanofluids**
TÜRKYILMAZOĞLU M.
EUROPEAN JOURNAL OF MECHANICS B-FLUIDS, vol.76, pp.1-6, 2019 (SCI-Expanded)
- LXXXIII. **A New Theoretical Approach of Wall Transpiration in the Cavity Flow of the Ferrofluids**
Siddiqui A. A., TÜRKYILMAZOĞLU M.
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- LXXXIV. **Accelerating the convergence of Adomian decomposition method (ADM)**
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- LXXXV. **Equivalence of Ratio and Residual Approaches in the Homotopy Analysis Method and Some Applications in Nonlinear Science and Engineering**
TÜRKYILMAZOĞLU M.
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- LXXXVI. **A Note on the Induced Flow and Heat Transfer Due to a Deforming Cone Rotating in a Quiescent Fluid**
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- LXXXVII. **Buongiorno model in a nanofluid filled asymmetric channel fulfilling zero net particle flux at the walls**
TÜRKYILMAZOĞLU M.
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- LXXXVIII. **Analytical solutions to mixed convection MHD fluid flow induced by a nonlinearly deforming permeable surface**
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COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.63, pp.373-379, 2018 (SCI-Expanded)
- LXXXIX. **Fluid flow and heat transfer over a rotating and vertically moving disk**
TÜRKYILMAZOĞLU M.
PHYSICS OF FLUIDS, vol.30, no.6, 2018 (SCI-Expanded)
- XC. **Stefan problems for moving phase change materials and multiple solutions**

TÜRKYILMAZOĞLU M.

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- XCII. **Hyperbolic Partial Differential Equations with Nonlocal Mixed Boundary Values and their Analytic Approximate Solutions**
TÜRKYILMAZOĞLU M.
INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, vol.15, no.2, 2018 (SCI-Expanded)
- XCIII. **Unsteady flow over a decelerating rotating sphere**
TÜRKYILMAZOĞLU M.
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- XCIV. **Flow and heat due to a surface formed by a vortical source**
TÜRKYILMAZOĞLU M.
EUROPEAN JOURNAL OF MECHANICS B-FLUIDS, vol.68, pp.76-84, 2018 (SCI-Expanded)
- XCV. **A reliable convergent Adomian decomposition method for heat transfer through extended surfaces**
TÜRKYILMAZOĞLU M.
INTERNATIONAL JOURNAL OF NUMERICAL METHODS FOR HEAT & FLUID FLOW, vol.28, no.11, pp.2551-2566, 2018 (SCI-Expanded)
- XCVI. **Heat transfer from moving exponential fins exposed to heat generation**
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- XCVII. **Solution of Initial and Boundary Value Problems by an Effective Accurate Method**
TÜRKYILMAZOĞLU M.
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- XCVIII. **Parametrized Adomian Decomposition Method with Optimum Convergence**
TÜRKYILMAZOĞLU M.
ACM TRANSACTIONS ON MODELING AND COMPUTER SIMULATION, vol.27, no.4, 2017 (SCI-Expanded)
- XCVIII. **Condensation of laminar film over curved vertical walls using single and two-phase nanofluid models**
TÜRKYILMAZOĞLU M.
EUROPEAN JOURNAL OF MECHANICS B-FLUIDS, vol.65, pp.184-191, 2017 (SCI-Expanded)
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Non Academic Experience

HACETTEPE ÜNİVERSİTESİ, Prof. Dr.

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