

October 19, 2023

09:15-09:50	Registration
	Chair: Hüseyin Merdan
09:50-10:10	Kübra Çınar İlmen, Büşra Meniz and Fatma Tiryaki Multi-Criteria Decision Making with Various Fuzzy Sets
10:10-10:30	Ramin Kazemi The variable sum exdeg index
10:30-10:50	Didem Ersanlı and Emrah Kılıç A Kind of Asymmetric and Nonlinear Matrix and Its Algebraic Properties
10:50-11:10	Mehtap Lafcı Büyükkahraman A Mathematical Model to Study the Fundamental Functions of Phagocytes and Inflammatory Cytokines Post-Myocardial Infarction
11:10-11:30	Coffee Break
	Chair: Elif Demirci
11:30-11:50	Şeyma Bilazeroğlu and Hüseyin Merdan Hopf bifurcations in a class of reaction-diffusion equations including two discrete time delays: An algorithm for determining Hopf bifurcation, and its applications
11:50-12:10	Pınar Baydemir and Hüseyin Merdan Allee Effect in Continuous-Time and Discrete-Time Predator-Prey Systems with Leslie Type
12:10-12:30	Maxim Solovchuk Multiphysics modeling of the high intensity focused ultrasound ablation of liver tumor
12:30-12:50	Kumar Saurabh and Maxim Solovchuk An Investigation of Ion Transport Through the SARS-CoV-2 E Protein Ion Channels
12:50-13:50	Lunch Time

	Chair: Ömür Uğur
13:50-14:10	Şevket Ege Yeşilyurt, Özgür Eriş and Özgür Ergül Topology Optimizations of Dielectric Slabs Using Machine Learning and Genetic Algorithms
14:10-14:30	Mustafa Erdi Kararmaz, Özgür Eriş and Özgür Ergül Genetic Algorithm Optimizations on Digital Electric Currents for Equivalent Scattering Properties
14:30-14:50	Şeniz Yarar and Ersin Emre Ören The Utility of Docking Programs for the Characterization of Peptide Protein Interactions
14:50-15:10	Canberk Kaçan, Özgür Eriş and Özgür Ergül Design and Investigation of Electromagnetic Responses of Near-Zero-Index Metamaterials Involving Dielectric Rods with Variable Cross Sections
15:10-15:30	Coffee Break
	Chair: Meltem Gölgeli
15:30-15:50	Eylem Bahadır and Önder Türk A Hadamard Variational Formula for a Laplace-Steklov EVP: Derivation and Applications
15:50-16:10	Cansu Evcin, Ömür Uğur and Münevver Tezer-Sezgin Placement of the Multiple Magnetic Sources for the Magnetohydrodynamic Flow via Optimal Control
16:10-16:30	Canan Bozkaya and Gamze Öğütçü New finite differences for solving equations of the modified Helmholtz type
16:30-16:50	Derya Altıntan Modeling and Inference Approaches for Biochemical Reaction Networks

October 20, 2023

09:15-09:30	Registration
	Chair: Cihan Tekođlu
09:30-09:50	Ahmet Arda Akay, Ercan Gürses and Serdar Göktepe A new approach for boundary element formulation of viscoelasticity in time domain
09:50-10:10	Hüsnü Dal, Alp Kađan Ačan, Funda Aksu Denli, Ođuz Ziya Tikenođulları and Recep Durna Data-driven modeling of complex materials
10:10-10:30	Ayşegül Badal, Özgür Eriş and Özgür Ergül Optimizations of nanoantenna arrays for improved power enhancement
10:30-10:50	Recep Muhammet Gorguluarslan and Zeynep Sönmez Topology Optimization using Lattice Materials with Isotropy Condition
10:50-11:10	Demirkan Coker, Onur Ali Batmaz, Mirac Onur Bozkurt and Ercan Gurses Numerical Simulation of Low-Velocity Impact on [05/903]s CFRP Beam Considering Accurate Experimental Conditions
11:10-11:30	Coffee Break
	Chair: Ercan Gürses
11:30-11:50	Alperen Demirtaş and Ercan Gürses Homogenization of nanocomposites with agglomerating particles using embedded element method
11:50-12:10	Muhittin Babaođlu and Serdar Göktepe Phase-Field Regularized Cohesive Modeling of Hydraulic Fracture
12:10-12:30	Çađlanaz Akın Gültaktı and Ersin Emre Ören Investigating the Charge Transport Properties of Nucleic Acid Analogues with Density Functional Theory
12:30-12:50	İrem Didin, Özgür Eriş and Özgür Ergül Design and Simulations of Near-Zero-Index Transmission Systems
12:50-13:50	Lunch Time

	Chair: İbrahim Tuna Özdür
13:50-14:10	Mehmet Doğan Güneş, Özgür Eriş and Özgür Ergül Design and Simulation of Electromagnetic Beam Splitters Based on Near-Zero-Index Metamaterials
14:10-14:30	Ercan Selçuk Bölükbaşı and Murat Manguoğlu A parallel randomized Kaczmarz algorithm for the solution of sparse linear systems on distributed memory
14:30-14:50	Can Öznurlu and Berke Bayri Data-Driven Model Discovery and Control: Parallel Computation-Based Testing and Analysis
14:50-15:10	Güray Hatipoğlu Mitigating noise-related object detection problems in JWST MIRI images by FFT-based methods
15:10-15:30	Coffee Break
	Chair: Ersin Emre Ören
15:30-15:50	Ahmet Yasin Önver and İbrahim Tuna Özdür Calibration-Based Polynomial-Fit Non-Uniformity Correction on Thermal Imaging Systems
15:50-16:10	Rabia Kaşıkçı and Ersin Emre Ören Forecasting the Evolutionary Pathways of the SARS-CoV-2 Spike Protein via the Calculation of Mutability Landscapes
16:10-16:30	Zeynep Koker and Ersin Emre Ören Controlling the Molecular Structure and Electrical Conductivity of DNA via Photoswitch Molecules
16:30-16:50	Batın Kurt, Özgür Eriş and Özgür Ergül A Novel Formulation for Fast and Accurate Solutions of Electromagnetic Problems Involving Open and Closed Perfectly Conducting Surfaces