

PROGRAM

PERŞEMBE 1 TEMMUZ 2010

- 8:30-9:30** Daan Frenkel (Cambridge University)
“Numerical Studies of Crystal Nucleation”
- 9:30-9:55** Nuh Gedik (Massachusetts Institute of Technology)
“Ultrafast Electronic and Structural Dynamics in High-Temperature Superconductors”
- 9:55-10:20** İnanç Adagideli (Sabancı University)
“Geometric Correlations and Breakdown of Mesoscopic Universality in Spin Transport”
- 10.20-10.35 Ara
- 10:35-11:00** Menderes Işkın (Koç University)
“Hardcore Bose-Hubbard Model with a Superlattice”
- 11:00-11:25** Afif Siddiki (Istanbul University and Harvard University)
“Quantum Hall Based Particle and Quasi-Particle Interferometers”
- 11:25-11:50** Özhan Özatay (Bosphorus University)
“A Novel 3D Memory Concept Based on Domain Nucleation and Transfer in Magnetic Nano Wire Arrays with Perpendicular to Plane Anisotropy”
- 11:50-13:00 Öğle Yemeği
- 13:00-15:00** KISA KONUŞMALAR (A1-A14)
- 15:00-15:30 Ara
- 15:30-15:55** Uğur Tırnaklı (Ege University)
“Emergence of Q-Gaussians in Complex Systems”
- 15:55-16:20** Tonguç Rador (Bosphorus University)
“Merger Dynamics in Three Agent Games”
- 16:20-16:35 Ara
- 16:35-18:30** KISA KONUŞMALAR (B1-B14)

CUMA 2 TEMMUZ 2010

- 8.30-9.30** Daan Frenkel (Cambridge University)
"Simulating Protein Crystallization: a New Twist to an Old Story"
- 9:30-9:55** Cem Servantie (Sabancı University)
"Molecular Dynamics Simulations to Probe Dynamics and Transport in Mesoscopic Systems"
- 9:55-10:20** Ersin Yurtsever (Koç University)
"Ionic Clusters in Potential Traps"
- 10.20-10.35 Ara
- 10:35-11:00** Feryal Özel (Universtiy of Arizona)
"Photon Transport in the Extreme Fields of Neutron Stars"
- 11:00-11:25** Taylan Akdoğan (Bosphorus University)
"What is the Deuteron?"
- 11:25-11:50** Duygu Balcan (Indiana University)
"Global Epidemic and Mobility Model: a Structured Meta-Population Approach to Epidemic Forecasting"
- 11:50-13:00 Öğle Yemeği
- 13:00-15:00** KISA KONUŞMALAR (C1-C15)
- 15:00-15:30 Ara
- 15:30-15:55** Zehra Akdeniz (Piri Reis University)
"Disorder in Ultracold Atomic Gases"
- 15:55-16:20** Nihat Berker (Sabancı University)
"Inverted Tricriticality and Apollonian Tulips in a Plenitude of Exactly Soluble Statistical Mechanics with Quenched Randomness"
- 16:20-16:35 Ara
- 16:35-18:30** KISA KONUŞMALAR (D1-D14)

CUMARTESİ 3 TEMMUZ 2010

İstatistiksel Fizikte Temel Problemler Oturumu: SU/Water

- 9:00-10:30** Alkan Kabakçıoğlu (Koç University)
“Biomolecules in Water: Hydrophobicity as an Entropic Force”
- 10:30-10:45 Ara
- 10:45-12:15** Can Fuat Delale (Işık University)
“Bubble and Droplet Formation (Nucleation) in Water”
- 12:15-12:30 Ara

Water @ SU

- 12:30-12:50** Canan Atılğan (Sabancı University)
“Protein-Water Dynamical Transition”
- 12:50-13:10** Ali Rana Atılğan (Sabancı University)
“Dynamics of Water on Decorated Surfaces”
- 13:10-13:30** A. Nihat Berker (Sabancı University)
“Earth’s Currents and Clouds, Jupiter and Saturn’s Ice Moons”

Kısa Konuşmalar Oturumları – Yazarlar (Konuşmacı) ve Başlıklar

A OTURUMU – Perşembe 1 Temmuz 2010 – 13:00-15:00

- A1 – **Başak Renkliođlu (Bilkent Üniversitesi), M. Cemal Yalabık**
“Renormalization-Group Study of Non-Equilibrium Phase Transitions in the Two-Temperature Ising Model”
- A2 – Erhan Albayrak, **Ali Yiđit (Çankırı Karatekin Üniversitesi), Tunç Cengiz**
“The Temperature-Dependent Phase Diagrams of Spin-3/2 Ising Model on a FM/AFM Two-Layer Lattice with Crystal Field”
- A3 – **Şeyma Akkaya Deviren (Erciyes Üniversitesi), Erhan Albayrak**
“Crystal Field Effects in the Spin-1 Ising Model with FM/AFM Interactions on a Two-Layer Bethe Lattice”
- A4 – **Aynur Aker (Erciyes Üniversitesi), Erhan Albayrak**
“The Sandwiched Trilayer of Bethe Lattices in the Form of the Spins with Spin-(1/2,1,1/2)”
- A5 – Bayram Deviren, **Yasin Polat (Erciyes Üniversitesi), Mustafa Keskin**
“Phase Diagrams in the Mixed Spin-3/2 and Spin-2 Ising System with Two Alternative Layers within the Effective-Field Theory”
- A6 – **Mehmet Kubilay Yıldız (Yıldız Üniversitesi)**
“Effective Mean Field Approach for 1D Dynamic Spin-1 Blume-Capel Model”
- A7 – **Asaf Tolga Ülgen (Abant İzzet Baysal Üniversitesi), Naci Sünel**
“Calculation of the Phase Transition Temperature in the Blume-Capel Model by a Different Method”
- A8 – Gül Gülpınar, **Fadıl İyikanat (Dokuz Eylül Üniversitesi), Yenal Karaaslan**
“Dynamics of a Blume-Capel Model with Quenched Diluted Crystal Field In The Neighborhood Of Equilibrium States”
- A9 – Gül Gülpınar, Erol Vatansver, **Mehmet Ağartiođlu (Dokuz Eylül Üniversitesi)**
“Effective-Field Theory on Blume-Capel Model with Crystal-Field Dilutence under a Time Oscillating Longitudinal Field”
- A10 – Gül Gülpınar, **Yenal Karaaslan (Dokuz Eylül Üniversitesi)**
“Influence of the Off-Diagonal Onsager Rate Coefficient On the Relaxation Dynamics of Anhydrous Dihalides of Iron-Group Elements”
- A11 – Gül Gülpınar, **Erol Vatansver (Dokuz Eylül Üniversitesi)**
“Investigation of the Kinetic Blume-Capel Model with Crsytal Field Randomness under the Influence of an Oscillating Magnetic Field”
- A12 – **Ayşe Özlem Aykut (Sabancı Üniversitesi), Canan Atılgan, Ali Rana Atılgan**
“Conformational Diversity of Calmodulin as Revealed by Linear Response Theory”
- A13– **İbrahim İnanç (Sabancı Üniversitesi), Ali Rana Atılgan, Canan Atılgan**
“Predictions of Thermodynamic Measurables of cis-1,4-Polybutadiene by an Anisotropic Network Model”

B OTURUMU – Perşembe 1 Temmuz 2010 – 16:35-18:30

- B1 – **Meltem Gönüloğ** (Dokuz Eylül Üniversitesi), Ekrem Aydiner, Özgür E. Müstecaplıođlu
“Decoherence in Two-Dimensional Quantum Random Walks with Traps”
- B2 – **Zafer Gedik** (Sabancı Üniversitesi),
“Stochastic Local Operations Acting on Flip and Exchange Symmetric Entangled States”
- B3 – **Göktuğ Karpat** (Sabancı Üniversitesi), Z. Gedik
“Time Evolution of Qubits in the Vicinity of Closed Timelike Curves”
- B4 – **Barış Çakmak** (Sabancı Üniversitesi), A.L. Subaşı, Z. Gedik
“No-Signaling and Approximate Copying Bounds On Quantum Cloning Machines”
- B5 – **Cem Çelebi** (Sabancı Üniversitesi)
“Surface Induced Asymmetry of Acceptor Wave Functions”
- B6 – **Ayşe Ferhan Yeşil** (Bilkent Üniversitesi), M. Cemal Yalabık
“Study of Two Particle Antisymmetric Simple Exclusion Process and Spontaneous Symmetry Breaking”
- B7 – **Özgür Afşar** (Ege Üniversitesi), Uğur Tırnaklı
“Probability Densities for the Sums of Iterates of the Sine-Circle Map in the Vicinity of the Quasi-Periodic Edge of Chaos”
- B8 – **Tuğba Öztürk Gökğöl** (Boğaziçi Üniversitesi), Hamza Altınsoy, M. Levent Kurnaz
“Climate Variable Extreme Event Analysis by Using Statistical Methods”
- B9 – **Hamza Altınsoy** (Boğaziçi Üniversitesi), Alperen Yüncü, Tuğba Öztürk Gökğöl, M. Levent Kurnaz
“Projection of 21st Century Turkey Precipitation and Temperature”
- B10 – **Ahmet Çelikođlu** (Ege Üniversitesi), Uğur Tırnaklı, Silvio M.D. Queiros
“Analysis of Return Distributions in Coherent Noise Model”
- B11 – **Mustafa Keskin** (Erciyes Üniversitesi), Bayram Deviren, Ersin Kantar
“Topology of the Main Turkish Companies Using Hierarchical Structure Methods”
- B12 – **Deniz Turgut** (Sabancı Üniversitesi), Osman Burak Okan, Canan Atılğan, Ali Rana Atılğan
“Statistical Properties of Spatial Networks”
- B13 – **Göker Arpağ** (İstanbul Teknik Üniversitesi), A. Erzan
“Statistical Analysis of Sirna Sequences: Pure Combinatorics or Natural Selection?”
- B14 – **Neşe Aral** (Koç Üniversitesi), Alkan Kabakçıođlu
“Dynamics of Gene Regulatory Cell Cycle Network in Saccharomyces Cerevisiae”

C OTURUMU – Cuma 2 Temmuz 2010 – 13:00-15:00

- C1 – **Tolga Çağlar (Koç Üniversitesi)**, A. Nihat Berker
“Interface Roughening Transition of the $d=3$ Ising Model from Hard-Spin Mean-Field Theory”
- C2 – **Onur Erten (Ohio State University)**, A. Mukherjee, N. Trivedi, M. Randeria, P.M. Woodward
“Effective Spin Hamiltonian, Magnetic Ground States and Low-Energy Excitations of Double Perovskites”
- C3 – **Fatma Meydaneri (Erciyes Üniversitesi)**, M. Özdemir, B. Saatçı
“Thermal Coefficients and Thermal Conductivities of Solid and Liquid Phases for Pure Pb, Pure Cd and their Binary Alloys”
- C4 – **Esra Özkan Zayim (İstanbul Teknik Üniversitesi)**
“Solid Electrochromic Device with Tungsten Oxide Active Layers”
- C5 – **Emine Aslan (Fırat Üniversitesi)**, İsmail Erzen, Niyazi Bulut
“Reactive Scattering Calculations for the $N+OH$ Reaction”
- C6 – **Mustafa Büyükkata (Bozok Üniversitesi)**, Z.B. Güvenç
“Structural and Energetic Analysis of Al-doped Boron Microclusters”
- C7 – **Nur Elmas (Bozok Üniversitesi)**, M. Büyükkata, Z. B. Güvenç
“DFT study of $B_4(C_7H_6)_n$ clusters for $n \leq 4$ ”
- C8 – **Ercan Karaköse (Erciyes Üniversitesi)**, Mustafa Keskin
“The Microstructure Properties and Microhardness of Rapidly Solidified Al-20Cu-12Fe-4Si Quasicrystal Alloy”
- C9 – **Cenk Yanık (Sabancı Üniversitesi)**, Cem Çelebi, Anıl Günay Demirkol, And İsmet İ. Kaya
“Nonequilibrium Electronic Transport Properties of Graphene Nanodevices”
- C10 – **Görkem Soyumer (Sabancı Üniversitesi)**, Cenk Yanık, Cem Çelebi, İsmet İ. Kaya
“Fabrication Characterization of Graphene and Few Layer Graphene Sheets with Optical Microscope, Raman Spectroscopy, AFM and SEM”
- C11 – **Mahmut Tosun (Sabancı Üniversitesi)**, Cem Çelebi, Görkem Soyumer, Anıl Günay, Cenk Yanık, İsmet İ. Kaya
“Mechanical Transfer of Epitaxially Grown Graphene Layers from SiC to SiO_x”
- C12 – **Anıl Günay Demirkol (Sabancı Üniversitesi)**, İsmet İ. Kaya
“Controlled Fabrication of Vacuum Tunneling Junctions”
- C13 – **Selen Erkan (İstanbul Teknik Üniversitesi)**, Haluk Özbek, Sevtap Yıldız
“Investigation of Nematic-Isotropic and Nematic-Smectic a Phase Transitions in Polar Liquid crystals via Optical Anisotropy Measurements”
- C14 – **Aykut Erbaş (Technical University of Munich)**, Rudolf Podgornik, Roland R. Netz
“Viscous Compressible Hydrodynamics at Planes, Spheres, and Cylinders with Finite Surface Slip”
- C15 – **A. Kiraz, Yasin Karadağ (Koç Üniversitesi)**, M.Y. Yüce, M. Gündoğan, A. Sennaroğlu
“Sustaining Raman Lasing of NaC-water Microdroplets on a Superhydrophobic Surface”

D OTURUMU – Cuma 2 Temmuz 2010 – 16:35-18:30

- D1 – Rasim Ovalı, Gökçe Küçükayan, Erman Bengü, **Oğuz Gülseren (Bilkent Üniversitesi)**
“Formation of Defect Structures on Graphene and CNTs: Effect of Sulphur Insertion”
- D2 – **Berk Onat (İstanbul Teknik Üniversitesi)**, Sondan Durukanoğlu
“Semi-Empirical Embedded Atom Method Potentials for Metals and Alloys”
- D3 – **Sondan Durukanoğlu (İstanbul Teknik Üniversitesi)**,
“Vibrational Characteristics of Ag Nanotubes and Nanowires”
- D4 – **Mine Konuk (İstanbul Teknik Üniversitesi)**, Sondan Durukanoğlu
“Spontaneous Formation of a Nanotube from a Square Ag Nanowire”
- D5 – **Yasemin Şengün (İstanbul Teknik Üniversitesi)**, Sondan Durukanoğlu
“Local Vibrational Density of States of Cu Nanowires”
- D6 – Gülay Dereli, **Önder Eyecioğlu (Yıldız Teknik Üniversitesi)**, Necati Vardar
“Electronic Structure of Single Wall Carbon Nanotubes with Defects”
- D7 – Gülay Dereli, **Necati Vardar (Yıldız Teknik Üniversitesi)**, Önder Eyecioğlu
“Durability of Single Walled Carbon Nanotubes”
- D8 – Gülat Dereli, **Banu Süngü (Yıldız Teknik Üniversitesi)**, Önder Eyecioğlu
“Diameter Effect on the Tensile Properties of Defected Armchair Single Walled Carbon Nanotubes”
- D9 – **Ozan S. Sarıyer (Koç Üniversitesi)**, Can Güven, Douwe J. Bonthuis, A. Nihat Berker, Roland R. Netz
“Water Flow through Carbon Nanotubes: Charge– Controlled Gating”
- D10– **V. Ongun Özçelik (Koç Üniversitesi)**, Douwe J. Bonthuis, A. Nihat Berker, Roland R. Netz
“Water Flow through Carbon Nanotubes: Ionic Concentration Effects”
- D11 – **Murat Tandoğan (Marmara Üniversitesi)**
“Thin Film Growth Studied by Monte Carlo Method”
- D12 – **Ali İhsan Meşe (Trakya Üniversitesi)**, P. Capuzzi, Z. Akdeniz, S. E. Okan
“Density Profiles and Inertia Moments of Interacting Bosons in Anisotropic Harmonic Confinement”
- D13– **İbrahim Mutlay (Ankara Üniversitesi)**,
“Fluidic Matter Field Approach for the Atomic Structure”
- D14 – C. Nadir Kaplan, **A. Nihat Berker (Sabancı Üniversitesi)**, Michael Hinczewski
“Frustrated Further-Neighbor Antiferromagnetic and Electron-Hopping Interactions in the $d=3$ tJ Model: Finite-Temperature Global Phase Diagrams from Renormalization-Group Theory”