

Program of the Sixth Statistical Physics Days

Istanbul Technical University, 15–16 July 1999

The “Friction” of Vacuum, and other Fluctuation-Induced Forces

Mehran Kardar (M.I.T.)

Collapse of Stiff Polyelectrolytes due to Counterion Fluctuations

Ramin Golestanian (University of California, Santa Barbara)

Crossover from Self-Affine to Self-Similar Behaviour in a Rough Adsorption-Reaction Interface Undergoing Delocalisation Transition

Hüseyin Kaya (F. Gürsey Research Institute for Basic Sciences, TÜBİTAK)

Thickness and Interface Effects on the Glass Transition Temperature of Thin Films

A. Levent Demirel (Koç University)

Phase Transitions in q-State Potts Model: Some Recent Results

Meral Aydın (Hacettepe University)

Generalization of the Three-State Binary Gas-Liquid Lattice Models and Analysis of their Critical Lines

Mustafa Gençaslan (Erciyes University)

The Extremal Dynamics of Protein Folding

Erkan Tüzel (I.T.U.)

Fibonacci Sequence in the Atomic Structure of the Icosohedral Quasicrystal Al-Pd-Mn

Mehmet Erbudak (Laboratorium für Festkörperphysik, ETHZ)

Production and Structure of Rapidly Solidified Al-Si Alloys

Orhan Uzun (Gaziosmanpaşa University)

Use of ESR Spectroscopy to Study Phase Transitions in Model and Biological Membranes

Mustafa Korkmaz (Hacettepe University)

Hard-Spin Mean-Field Theory: A Self-Consistent Theory for Fluctuation-Dominated Systems

Alkan Kabakçioğlu (M.I.T.)

Defect Structures and their Applications in Photonic Crystals

Ekmel Özbay (Bilkent University)

Monopole Condensation Solutions of the Seiberg-Witten Monopole Equations

Cihan Saçhoğlu (Bosphorus University)

Genetic Algorithms and their Application to Permutations

Göktürk Üçoluk (Middle East Technical University)

Sets of Finite Dimension in Infinite-Dimensional Spaces

Alp Eden (Bosphorus University)

SHORT TALKS

(When more than one author, the speaker is indicated by an asterisk)

Static and Dynamic Scattering from Native Proteins

Burak Erman (Sabancı University)

Impurity Mediated Nucleation in Hexadecane-in-Water Emulsions

Amy B. Herhold, Deniz Ertaş*, Alex J. Levine, and H. E. King, Jr.
(Exxon)

The Gelation Process of Polyacrylamide Gels with Different Crosslinker Contents: A UV-Visible Study

Selim Kara* (Trakya University) and Önder Pekcan (I.T.U.)

An Effect of Film Thickness on Void Closure During Film Formation from Hard Latex Particles with Different Molecular Weights

Ertan Arda* (Trakya University) and Önder Pekcan (I.T.U.)

Fast Transient Fluorescence Technique for Monitoring Gelation in Free-Radical Crosslinking Copolymerization

Demet Kaya*, Matem Erdoğan, and Önder Pekcan (I.T.U.)

Oxygen Diffusion into Latex Films Annealed at Various Temperatures: A Fluorescence Study

Şaziye Uğur* and Önder Pekcan (I.T.U.)

Effect of the Molar Size of Solvent Molecules on the Swelling of a Gel: A Fluorescence Study

Matem Erdoğan* and Önder Pekcan (I.T.U.)

Smectic A-C-A Liquid Crystal Reentrance: A Photon Transmission Study

Haluk Özbek, Sevtap Yıldız*, Önder Pekcan (I.T.U.), and Nihat Berker (M.I.T. and I.T.U.)

A New Ultrasonic Method for d/c Calculations in Free Radical Polymerization

Huceste Çatalgil-Giz, Ahmet Giz, and Ayşegül Öncül-Koç* (I.T.U.)

Simulation of Formation and Termination of Macro-Radicals during Ultrasonic Polymer Scission

Ahmet Giz, Huceste Çatalgil-Giz, Nermin Gündoğan, and Aşkın Tuzcuoğlu* (I.T.U.)

Simulation of Block Copolymer Synthesis on Ultrasonically Formed Macro Radicals

Ahmet Giz, Huceste Çatalgil-Giz, Nermin Gündoğan*, and Aşkın Tuzcuoğlu (I.T.U.)

Swelling Studies in Electrochemically Prepared Acrylamide/Bisacrylamide Gels
Huceste Çatalgil-Giz, Gülcemal Yıldız*, and Ahmet Giz (I.T.U.)

Aharonov–Bohm Effect in One-Channel Weakly Disordered Rings

Enver Nakhmedov, Heiko Feldmann*, and R. Oppermann (Würzburg University)

End Effect to Metal-Insulator Phase Transition in Polyacetylene

Naci Sünel (Gaziosmanpaşa University)

The Effect of Electron–Electron Interaction to Energy Gap and Order Parameter in Polyacetylene

Naci Sünel* (Gaziosmanpaşa University) and Salih Değirmenci (Ondokuz Mayıs University)

Quantum Mechanical Interactions For Small Systems

Funda Ersoy Atalay*, Ali Bayrı (İnönü University), and Servet Ekmekçi (Trakya University)

Degenerate Quantum Mechanical Ground States of a Frustrated Small System

Ali Bayrı*, Funda Ersoy Atalay (İnönü University), and Servet Ekmekçi (Trakya University)

Quantum Phase Transition in a Two-Dimensional Frustrated Square Lattice
Hüseyin Gencer* and Ali Bayrı (İnönü University)

Ionic Clusters in Aluminum Alkali Fluoride Melts

Ali Karaman*, Zeynep Çiçek, Zehra Akdeniz (Istanbul University), and M. P. Tosi (Scuola Normale Superiore Pisa)

Statistical Analysis of Structural Forms of Ni_n, n = 5–14, Clusters

Ziya B. Güvenç* (Çankaya University), Dilek Güvenç (Bilkent University), and Julius Jellinek (Argonne Nat. Lab.)

Reactions of Nickel Clusters with D₂: Computational Studies

Mustafa Böyükata*, Perihan Durmuş, Süleyman Özçelik (Gazi University), Ziya B. Güvenç (Çankaya University), and Julius Jellinek (Argonne Nat. Lab.)

Many-Body Potentials of Liquid Noble Metals Obtained by the Inverse Method
Serap Dalgıç*, Şaban Aktaç, Seyfettin Dalgıç (Trakya University), and Mehmet Tomak (M.E.T.U.)

Pre-Martensitic and Post-Martensitic Transitions in Copper Based Shape Memory Alloys

Haluk Koralay, Yusuf Atıcı, and Osman Adıgüzel* (Firat University)

Phase Diagrams of the Blume-Emery-Griffiths Model Calculated by the Mean-Field Approximation Including the Transverse Field Effects

Erhan Albayrak* and Mustafa Keskin (Erciyes University)

The Metastable and Unstable Phase Diagrams of the Blume-Emery-Griffiths Model in Addition to the Equilibrium Phase Diagram

Cesur Ekiz* (Gaziosmanpaşa University) and Mustafa Keskin (Erciyes University)

Statistical Tests of Random Numbers

Ahmet Cengiz (Uludağ University)

Intracavity Reflections in DQW Semiconductor Lasers

Ali Serpengüzel*, B. Erol Sağol, and Selim Tanrıseven (Bilkent University)

Field Dependence of the Current-Voltage Characteristics in High- T_c Superconductors

Atilla Kılıç*, Kuvılcım Kılıç (Abant İzzet Baysal University), S. Senoussi (U. Paris Sud), and K. Demir (Zonguldak Karaelmas University)

On Conformal Field Theories at Fractional Levels

Ernest Bayer, Doron Gepner, and Umut Gürsoy* (Weizmann Inst. of Science)

On the Measurability of Time-Separation in the Framework of the Wigner Function and the Density Matrix

Suayyip Salim Özkurt (Dumlupınar University)

The Critical Behavior of the Two-Dimensional Ising Model in a Field

Bülent Kutlu* (Gazi University) and Şeref Turhan (T.A.E.K.)

A Nonlinearity Analysis of the Nonlinear Resistor Circuit Using a Statistical Test

Erol Kurt*, Selim Acar, and Reşat Kasap (Gazi University)

Multiplicity of Ordered Phases in Frustrated Systems Obtained from Hard-Spin Mean-Field Theory

Hüseyin Kaya* (Gürsey Inst. and I.T.U.) and Nihat Berker (M.I.T. and I.T.U.)

Renormalization-Group Studies of the Electronic Conductivities of the tJ and Hubbard Models of Electronic Conduction

Alkan Kabakçioğlu* (M.I.T.) and Nihat Berker (M.I.T. and I.T.U.)

Renormalization-Group Study of the Collapsing Transition of a Polymer in Two Dimensions

Gabriele Migiorini (M.I.T.) and Nihat Berker* (M.I.T. and I.T.U.)

Coordinators: Nihat Berker, Department of Physics, M.I.T., Cambridge, MA 02139; Ayşe Erzan, Department of Physics, I.T.U., Maslak, Istanbul 80626, Turkey.