College of Sciences

FACULTY RESOURCE GUIDE
DIRECTORY CONTENTS

A Message from the Dean
Faculty Telephone Numbers & E-Mail Addresses
College Administration
Faculty by Research Centers
Faculty by Laboratories
Faculty by Department
Faculty by Specialty
Faculty Profiles and Vitae
The College of Sciences covers a wide range of expertise in applied as well as theoretical areas of Chemistry, Mathematics, Molecular Biology and Genetics, and Physics. The mission of the college is to be a center of excellence in both research and teaching. Our faculty members are engaged in teaching the core, area, and elective courses of the College at the undergraduate and graduate level. At the same time, they are all active in research and internationally recognized in their fields of expertise. Most of the faculties are also recipients of the established scientific awards from the Turkish Academy of Sciences (TÜBA) or the Scientific and Technological Research Council of Turkey (TÜBİTAK).

The College of Sciences houses numerous research facilities in biochemistry, cell biology, ceramics, computational chemistry, computational physics, genetics, inorganic synthesis, laser science and technology, metamaterials and plamronics, micro-photonics, molecular biology, neuroscience, polymer chemistry, nano-photonics, spectroscopy, surface chemistry, surface plasmon resonance, quantum dot synthesis, and x-ray diffraction. Furthermore, the Center for Surface Science and Technology (KUYTAM) and the Photonics Research Center (KUPRC) provide state-of-the-art infrastructure that enable interdisciplinary studies and foster collaboration with industrial partners as well as other departments in Koç University. The on-going research projects have been sponsored by many national and international sources including the State Planning Agency (DPT), TÜBİTAK, TÜBA, European Union, and the National Science Foundation (NSF).

The faculty guide serves to highlight the educational background and areas of expertise of the College of Sciences faculty. We hope that the information provided here will lead to fruitful collaborations.

Alphan Sennaroğlu
Dean
College of Sciences
<table>
<thead>
<tr>
<th>Letter</th>
<th>Name</th>
<th>Phone Number</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Funda H. Yaşcı Acar</td>
<td>+90-212-338-1742</td>
<td><a href="mailto:fyagci@ku.edu.tr">fyagci@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Emre Alkan</td>
<td>+90-212-338-1714</td>
<td><a href="mailto:ealkan@ku.edu.tr">ealkan@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Attila Aşkar</td>
<td>+90-212-338-1400</td>
<td><a href="mailto:aaskan@ku.edu.tr">aaskan@ku.edu.tr</a></td>
</tr>
<tr>
<td>B</td>
<td>Özgür Birer</td>
<td>+90-212-338-1357</td>
<td><a href="mailto:obirer@ku.edu.tr">obirer@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Kazım Büyükbuduk</td>
<td>+90-212-338-1743</td>
<td><a href="mailto:kbuyukbuduk@ku.edu.tr">kbuyukbuduk@ku.edu.tr</a></td>
</tr>
<tr>
<td>C</td>
<td>Elvan Ceylan</td>
<td>+90-212-338-1845</td>
<td><a href="mailto:elceyhan@ku.edu.tr">elceyhan@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Barış Coşkunüzer</td>
<td>+90-212-338-1486</td>
<td><a href="mailto:bcoksunuzer@ku.edu.tr">bcoksunuzer@ku.edu.tr</a></td>
</tr>
<tr>
<td>C</td>
<td>Mine Çağlar</td>
<td>+90-212-338-1315</td>
<td><a href="mailto:mcaglar@ku.edu.tr">mcaglar@ku.edu.tr</a></td>
</tr>
<tr>
<td>D</td>
<td>Adem Levent Demirel</td>
<td>+90-212-338-1350</td>
<td><a href="mailto:ldemirel@ku.edu.tr">ldemirel@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Tekin Dereli</td>
<td>+90-212-338-1510</td>
<td><a href="mailto:tdereli@ku.edu.tr">tdereli@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Cory D. Dunn</td>
<td>+90-212-338-1449</td>
<td><a href="mailto:cdunn@ku.edu.tr">cdunn@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Gülayşe İnce Dunn</td>
<td>+90-212-338-1581</td>
<td><a href="mailto:gdunn@ku.edu.tr">gdunn@ku.edu.tr</a></td>
</tr>
<tr>
<td>E</td>
<td>Durata Hacı Ertek</td>
<td>+90-212-338-1573</td>
<td><a href="mailto:dhaciu@ku.edu.tr">dhaciu@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Tolga Etgü</td>
<td>+90-212-338-1787</td>
<td><a href="mailto:tetgu@ku.edu.tr">tetgu@ku.edu.tr</a></td>
</tr>
<tr>
<td>G</td>
<td>Kaan Güven</td>
<td>+90-212-338-1697</td>
<td><a href="mailto:kguven@ku.edu.tr">kguven@ku.edu.tr</a></td>
</tr>
<tr>
<td>I</td>
<td>Menderes İskın</td>
<td>+90-212-338-1604</td>
<td><a href="mailto:miskin@ku.edu.tr">miskin@ku.edu.tr</a></td>
</tr>
<tr>
<td>K</td>
<td>Alkan Kabakçıoğlu</td>
<td>+90-212-338-1830</td>
<td><a href="mailto:akabakcioglu@ku.edu.tr">akabakcioglu@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Varga Kalantarov</td>
<td>+90-212-338-1558</td>
<td><a href="mailto:vkalantarov@ku.edu.tr">vkalantarov@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Alper Kiraz</td>
<td>+90-212-338-1701</td>
<td><a href="mailto:akiraz@ku.edu.tr">akiraz@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Selda Küçükçifçi</td>
<td>+90-212-338-1523</td>
<td><a href="mailto:skucukcifci@ku.edu.tr">skucukcifci@ku.edu.tr</a></td>
</tr>
<tr>
<td>M</td>
<td>Emre Mengi</td>
<td>+90-212-338-1658</td>
<td><a href="mailto:emengi@ku.edu.tr">emengi@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Ali Mostafazadeh</td>
<td>+90-212-338-1462</td>
<td><a href="mailto:amostafazadeh@ku.edu.tr">amostafazadeh@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Özgür Müstecaplıoğlu</td>
<td>+90-212-338-1424</td>
<td><a href="mailto:omustecap@ku.edu.tr">omustecap@ku.edu.tr</a></td>
</tr>
<tr>
<td>Ö</td>
<td>Burak Özbayçı</td>
<td>+90-212-338-1731</td>
<td><a href="mailto:bozbayci@ku.edu.tr">bozbayci@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Nurhan Özlü</td>
<td>+90-212-338-1571</td>
<td><a href="mailto:nozlu@ku.edu.tr">nozlu@ku.edu.tr</a></td>
</tr>
<tr>
<td>S</td>
<td>Alphan Sennaroğlu</td>
<td>+90-212-338-1400</td>
<td><a href="mailto:asennar@ku.edu.tr">asennar@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Ali Serpengüzel</td>
<td>+90-212-338-1312</td>
<td><a href="mailto:aserpenguzel@ku.edu.tr">aserpenguzel@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Mehmet Suat Somer</td>
<td>+90-212-338-1352</td>
<td><a href="mailto:msomer@ku.edu.tr">msomer@ku.edu.tr</a></td>
</tr>
<tr>
<td>Ü</td>
<td>Ali Ülger</td>
<td>+90-212-338-1568</td>
<td><a href="mailto:aulger@ku.edu.tr">aulger@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Uğur Önal</td>
<td>+90-212-338-1339</td>
<td><a href="mailto:ugunal@ku.edu.tr">ugunal@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Sinan Ünver</td>
<td>+90-212-338-1692</td>
<td><a href="mailto:sunver@ku.edu.tr">sunver@ku.edu.tr</a></td>
</tr>
<tr>
<td>Y</td>
<td>Emine Şule Yazıcı</td>
<td>+90-212-338-1844</td>
<td><a href="mailto:eyazici@ku.edu.tr">eyazici@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Emel Yılgör</td>
<td>+90-212-338-1505</td>
<td><a href="mailto:eyilgor@ku.edu.tr">eyilgor@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>İskender Yılgör</td>
<td>+90-212-338-1418</td>
<td><a href="mailto:iyilgor@ku.edu.tr">iyilgor@ku.edu.tr</a></td>
</tr>
<tr>
<td></td>
<td>Ersin Yurtsever</td>
<td>+90-212-338-1400</td>
<td><a href="mailto:eyurtsev@ku.edu.tr">eyurtsev@ku.edu.tr</a></td>
</tr>
</tbody>
</table>

**COLLEGE ADMINISTRATION**

**DEAN**

Alphan Sennaroğlu, +90-212-338-1429

**ASSOCIATE DEAN**

Adem Levent Demirel, +90-212-338-1350

---

**FACULTY TELEPHONE NUMBERS & E-MAIL ADDRESSES**

---

**COLLEGE OF SCIENCES**
FACULTY BY RESEARCH CENTERS

KUYTAM
Koç University Surface Science and Technology Center
Director
İskender Yılgör +90-212-338-1418

KUPRC
Koç University Photonics Research Center
Director
Alphan Sennaroğlu +90-212-338-1400

FACULTY BY LABORATORIES

CHEMISTRY DEPARTMENT RESEARCH CENTERS AND LABORATORIES
Polymer Research Laboratory
http://portal.ku.edu.tr/~iyilgor/index.htm
İskender Yılgör, Emel Yılgör

Computational Biology & Chemistry Laboratory
http://home.ku.edu.tr/~ersin
Ersin Yurtsever

Inorganic Chemistry Research Laboratory
http://portal.ku.edu.tr/~inorganic/
Mehmet Somer

Thin Film & Surface Physical Chemistry Laboratory
http://portal.ku.edu.tr/~ldemirel/
Levent Demirel

Polymers and Nanomaterials Research laboratory
http://portal.ku.edu.tr/~fyagci/
Funda Yağcı Acar

Layered Materials and Ceramics Research Laboratory
http://portal.ku.edu.tr/~ugunal/
Uğur Ünal

Surface Plasmon Research Laboratory
http://portal.ku.edu.tr/~obirer/
Özgür Birer

Materials Wet Synthesis Laboratory
Özgür Birer, Uğur Ünal

PHYSICS DEPARTMENT RESEARCH CENTERS AND LABORATORIES
Laser Research Laboratory (LRL)
http://portal.ku.edu.tr/~KULaserLab/
Alphan Sennaroğlu

Microphotonics Research Laboratory (MRL)
http://home.ku.edu.tr/~microphotonics/
Ali Serpengüzel

Nano-Optics Research Laboratory (NRL)
http://nano-optics.ku.edu.tr/
Alper Kiraz

MOLECULAR BIOLOGY AND GENETICS DEPARTMENT
RESEARCH CENTERS AND LABORATORIES
Molecular Biology and Genetics Research Laboratory
Gülayşe Ince Dunn, Cory Dunn

FACULTY BY DEPARTMENT

CHEMISTRY
Funda H. Yağcı Acar
Özgür Birer
Adem Levent Demirel
Durata Hacı Ertek
Mehmet Suat Somer
Uğur Ünal
Emel Yılgör
İskender Yılgör
Ersin Yurtsever

MATHEMATICS
Emre Alkan
Atila Aşık
Kazım Büyükboduk
Elvan Ceyhan
Mine Çağlar
Bars Çoğunuzer
Tolga Etkü
Varga Kalantrov
Selda Küçükciftçi
Emre Mengi
Ali Mostafazadeh
Burak Özbağcı
Ali Ülger
Sinan Unver
Emine Şule Yazıcı

PHYSICS
Tekin Dereli
Kaan Güven
Menderes İskın
Alkan Kabakçıoğlu
Alper Kiraz
Özgür E. Mustecaplioğlu
Alphan Sennaroğlu
Ali Serpengüzel

MOLECULAR BIOLOGY &GENETICS
Cory D. Dunn
Gülayşe Ince Dunn
Nurhan Özlu
<table>
<thead>
<tr>
<th>Speciality</th>
<th>Faculty Members</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td></td>
</tr>
<tr>
<td>Adhesion</td>
<td>Adem Levent Demirel</td>
</tr>
<tr>
<td>Analytic Number Theory</td>
<td>Emre Alkan</td>
</tr>
<tr>
<td>Applied Math and Statistics</td>
<td>Elvan Ceyhan</td>
</tr>
<tr>
<td>Areas of Solid State Chemistry</td>
<td>Mehmet Suat Somer</td>
</tr>
<tr>
<td>Arithmetic Algebraic Geometry</td>
<td>Kazım Büyükboduk</td>
</tr>
<tr>
<td>Asymptotic Group Theory</td>
<td>Emre Alkan</td>
</tr>
<tr>
<td>Automorphic and Modular Forms</td>
<td>Emre Alkan</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td></td>
</tr>
<tr>
<td>Cell Biology</td>
<td>Cory D. Dunn, Gülayşe İnce Dunn, Nurhan Özü</td>
</tr>
<tr>
<td>Characterization methods: XRD</td>
<td></td>
</tr>
<tr>
<td>for Powder and Single Crystals,</td>
<td></td>
</tr>
<tr>
<td>FT Raman Spectroscopy, FT-IR/</td>
<td></td>
</tr>
<tr>
<td>FIR Spectroscopy (4000–100 cm–1),</td>
<td></td>
</tr>
<tr>
<td>Thermal Analysis (DTA/TG)</td>
<td></td>
</tr>
<tr>
<td>Coatings</td>
<td>Adem Levent Demirel</td>
</tr>
<tr>
<td>Combinatorics</td>
<td>Selda Küçükçifçi, Emine Şüle Yazıcı</td>
</tr>
<tr>
<td>Combinatorial Design Theory</td>
<td>Selda Küçükçifçi</td>
</tr>
<tr>
<td>Computational Mathematics</td>
<td>Emine Şüle Yazıcı</td>
</tr>
<tr>
<td>Condensed Matter Physics</td>
<td>Kaan Güven</td>
</tr>
<tr>
<td>Conformational Properties of</td>
<td></td>
</tr>
<tr>
<td>(Bio)Polymers</td>
<td>Alkan Kabakçoğlu</td>
</tr>
<tr>
<td>Continuum Mechanics</td>
<td>Attila Aşkar</td>
</tr>
<tr>
<td>Design Theory</td>
<td>Emine Şüle Yazıcı</td>
</tr>
<tr>
<td>Differential Equations</td>
<td>Attila Aşkar</td>
</tr>
<tr>
<td>Dissipative Dynamical Systems</td>
<td>Varga Kalantarov</td>
</tr>
<tr>
<td>Distribution of subsets of Real</td>
<td>Emre Alkan</td>
</tr>
<tr>
<td>Numbers</td>
<td></td>
</tr>
<tr>
<td>Electrochemistry</td>
<td>Uğur Ünal</td>
</tr>
<tr>
<td>Femtosecond Lasers</td>
<td>Alphan Sennaroğlu</td>
</tr>
<tr>
<td>Friction</td>
<td>Adem Levent Demirel</td>
</tr>
<tr>
<td>Functional Analysis</td>
<td>Ali Ülger</td>
</tr>
<tr>
<td>General Relativity</td>
<td>Tekin Dereli</td>
</tr>
<tr>
<td>Genetics</td>
<td>Cory D. Dunn</td>
</tr>
<tr>
<td>Geometry and Topology of Gauge</td>
<td>Tekin Dereli</td>
</tr>
<tr>
<td>Fields</td>
<td></td>
</tr>
<tr>
<td>Geometric Topology</td>
<td>Barış Coşkunüzer</td>
</tr>
<tr>
<td>Glass Lasers</td>
<td>Alphan Sennaroğlu</td>
</tr>
<tr>
<td>Graph Theory</td>
<td>Selda Küçükçifçi</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td></td>
</tr>
<tr>
<td>Economy of Development</td>
<td>Ziya Öniş</td>
</tr>
<tr>
<td>High Dimensional Data Analysis</td>
<td>Elvan Ceyhan</td>
</tr>
<tr>
<td>Inorganic Synthesis</td>
<td></td>
</tr>
<tr>
<td>(Nanoscaled Particle Synthesis)</td>
<td>Durata Haciu Ertek</td>
</tr>
<tr>
<td>Lasers</td>
<td>Alphan Sennaroğlu</td>
</tr>
<tr>
<td>Layers</td>
<td></td>
</tr>
<tr>
<td>Linear Models</td>
<td>Elvan Ceyhan</td>
</tr>
<tr>
<td>Low-Dimensional Manifolds</td>
<td>Burak Özbağcı</td>
</tr>
<tr>
<td>Low-Dimensional Topology</td>
<td>Tolga Etgü</td>
</tr>
<tr>
<td>Mathematical Physics</td>
<td>Ali Mostafazadeh</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Sinan Ünver</td>
</tr>
<tr>
<td>Medical Image Analysis</td>
<td>Elvan Ceyhan</td>
</tr>
<tr>
<td>Metamaterials and Transformation</td>
<td>Kaan Güven</td>
</tr>
<tr>
<td>Optics</td>
<td></td>
</tr>
<tr>
<td>Microbiology</td>
<td>Cory D. Dunn</td>
</tr>
<tr>
<td>Micro-Optics</td>
<td>Alper Kiraz</td>
</tr>
<tr>
<td>Minimal Surfaces</td>
<td>Barış Coşkunüzer</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td></td>
</tr>
<tr>
<td>General Relativity</td>
<td>Tekin Dereli</td>
</tr>
<tr>
<td>Genetics</td>
<td>Cory D. Dunn</td>
</tr>
<tr>
<td>Geometry and Topology of Gauge</td>
<td>Tekin Dereli</td>
</tr>
<tr>
<td>Fields</td>
<td></td>
</tr>
<tr>
<td>Geometric Topology</td>
<td>Barış Coşkunüzer</td>
</tr>
<tr>
<td>Glass Lasers</td>
<td>Alphan Sennaroğlu</td>
</tr>
<tr>
<td>Graph Theory</td>
<td>Selda Küçükçifçi</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td></td>
</tr>
<tr>
<td>High Dimensional Data Analysis</td>
<td>Elvan Ceyhan</td>
</tr>
<tr>
<td><strong>I</strong></td>
<td></td>
</tr>
<tr>
<td>Inorganic Synthesis</td>
<td></td>
</tr>
<tr>
<td>(Nanoscaled Particle Synthesis)</td>
<td>Durata Haciu Ertek</td>
</tr>
<tr>
<td>Lasers</td>
<td>Alphan Sennaroğlu</td>
</tr>
<tr>
<td>Layers</td>
<td></td>
</tr>
<tr>
<td>Linear Models</td>
<td>Elvan Ceyhan</td>
</tr>
<tr>
<td>Low-Dimensional Manifolds</td>
<td>Burak Özbağcı</td>
</tr>
<tr>
<td>Low-Dimensional Topology</td>
<td>Tolga Etgü</td>
</tr>
<tr>
<td>Mathematical Physics</td>
<td>Ali Mostafazadeh</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Sinan Ünver</td>
</tr>
<tr>
<td>Medical Image Analysis</td>
<td>Elvan Ceyhan</td>
</tr>
<tr>
<td>Metamaterials and Transformation</td>
<td>Kaan Güven</td>
</tr>
<tr>
<td>Optics</td>
<td></td>
</tr>
<tr>
<td>Microbiology</td>
<td>Cory D. Dunn</td>
</tr>
<tr>
<td>Micro-Optics</td>
<td>Alper Kiraz</td>
</tr>
<tr>
<td>Minimal Surfaces</td>
<td>Barış Coşkunüzer</td>
</tr>
</tbody>
</table>
MODELLING BIOLOGICAL INTERACTIONS
Alkan Kabakçıoğlu

MOLECULAR BIOLOGY
Gülayse İnce Dunn

NANOMATERIALS
Özgür Birer

NANO-OPTICS
Kaan Güven, Alper Kiraz

NANO-STRUCTURED MATERIALS
Adem Levent Demirel

NEUROBIOLOGY
Gülayse İnce Dunn

NONLINEAR PROBLEMS OF CONTINUUM MECHANICS
Varga Kalantarov

NUMBER THEORY
Kazım Büyükboduk

NUMERICAL ANALYSIS
Emre Mengi

NUMERICAL LINEAR ALGEBRA
Emre Mengi

NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS
Attila Aşkar

NUMERICAL OPTIMIZATION
Emre Mengi

OPTICAL MICROCAVITIES
Alper Kiraz

OPTICS
Alper Kiraz

OPTOELECTRONICS
Ali Serpengüzel

RANDOM GRAPHS AND THEIR APPLICATIONS
Elvan Ceyhan

RENORMALIZATION OF QUANTUM FIELD THEORIES
Tekin Dereli

RHEOLOGY
Adem Levent Demirel

SCIENTIFIC COMPUTATION
Kaan Güven

SELF-ORGANIZATION OF POLYMERS, POLYPEPTIDES
Adem Levent Demirel

SIEVE THEORY
Emre Alkan

SINGLE MOLECULE MICROSCOPY
Alper Kiraz

SINGLE MOLECULE SPECTROSCOPY
Alper Kiraz

SOLID STATE CHEMISTRY
Uğur Ünal

SOLID-STATE LASERS
Alphan Sennaroğlu

SPATIAL PATTERN ANALYSIS
Elvan Ceyhan

SPIN STRUCTURES
Tekin Dereli

STATISTICAL DEPTH
Elvan Ceyhan

STATISTICAL PHYSICS OF COMPLEX SYSTEMS
Alkan Kabakçıoğlu

STATISTICAL THERMODYNAMICS
Ersin Yurtsever

STOCHASTIC PROCESSES
Mine Çağlar

SURFACES
Özgür Birer

SYNTHESIS AND CHARACTERIZATION OF TERNARY BORON NITRIDES, POLAR INTERMETALLIC COMPOUNDS (ZINTL PHASES), CLUSTER COMPOUNDS, NANO AND MESO SCALED RARE EARTH OXIDES, SOLID HYDROGEN STORAGE MATERIALS
Mehmet Suat Somer

SYNTHESIS METHODS: HIGH TEMPERATURE SYNTHESIS (UP TO 1500 C), HYDROTHERMAL SYNTHESIS, SYNTHESIS IN LIQUID AMMONIA, SOL–GEL PROCESSES
Mehmet Suat Somer

THEORETICAL CONDENSED ATOMIC AND MOLECULAR PHYSICS
Menderes Işkın

THEORETICAL CHEMISTRY
Ersin Yurtsever

THIN FILMS
Adem Levent Demirel

ULTRAFAST AND NONLINEAR OPTICS
Alphan Sennaroğlu

VIBRATIONAL SPECTROSCOPY
Mehmet Suat Somer
Ph.D. in Polymer Science and Engineering, University of Southern Mississippi, 1999; M.Sc. in Chemistry, Boğaziçi University, 1995; B.Sc. in Chemistry, Boğaziçi University, 1993

Dr. Yağcı Acar teaches organic chemistry, general chemistry, biomaterials, polymers, nanoparticles. Her recent research focuses on the development of magnetic and luminescent nanoparticles, development of targeted contrast agents and drug delivery vehicles, organic-inorganic composites, self-assembly in polymers, development of new functional polymers for bioapplications, development of new high-heat thermoplastics and investigation of structure-property relationships in materials.

SELECTED PUBLICATIONS


GRANTS and CONSULTING

Marie Curie IRG, Synthesis of Magnetic Quantum Dots, MIRG-CT-2006-031072

TÜBİTAK, Kararlı ve Küçük Süperaramanyetik Nanoparçacıkların Geliştirilmesi, Proje # 104M401
TÜBİTAK, Manyetik “Polimer-Anorganik Hibrid Malzemeler”ın Geliştirilmesi ve Optik Tarayıcı Uygulamalarında Kullanılması, Proje # 104M161. Co-investigators: Mehmet Somer, A. Levent Demirel, Hakan Ürey

**PATENTS**

H. Yağcı Acar, A. Torres, WO2006055447 (A2), Cationic nanoparticle having an inorganic core.

Q. Ye, D. B. Hall, W. D. Richards, D. J. Brunelle; H. Yağcı Acar, JP2007056263 (A), Copolyetherimide.


H. Yağcı Acar, F. A. Syud, R. N. Garaas, P. J. Bonitatebus, A. M. Kulkarni, US 2005260137 A1, Contrast agents for magnetic resonance imaging

D. Brunelle, H. Yağcı Acar, F. Khouri, W. Richards, US 6849706, Copolyetherimides, 2005


**PROFESSIONAL EXPERIENCE**

**Academic**

Sep 2004 - Assistant Professor, Department of Chemistry, Koç University

**Visiting Academic Positions**

1998 March-August Visiting Scientist, Universite d’Aix-Marseille III, Marseille, France, industrial collaboration: Elf Atochem, University of Southern Mississippi –Universite d’Aix-Marseille III

**Industry Experience**

2002-2004 Lead Professional, General Electric Global Research Center, Polymer and Specialty ChemicalsTechnology, Emerging Technologies Laboratory, Niskayuna, NY, USA

2000-2002 Post-doctoral Research Associate, General Electric Global Research Center, Polymer and Specialty Chemicals Technology Laboratory, Niskayuna, NY, USA

**HONORS and AWARDS**

Received Whitney Technical Achievement Reward-2002

L’OREAL-UNESCO Turkey National fellowship for Women in Science-2008

**MEMBER**

Materials Research Society
EMRE ALKAN
Assistant Professor of Mathematics

ANALYTIC NUMBER THEORY
AUTOMORPHIC AND MODULAR FORMS
SIEVE THEORY

DISTRIBUTION OF SUBSETS OF REAL NUMBERS
ASYMPTOTIC GROUP THEORY

PhD. in Mathematics, 2003, University of Wisconsin at Madison; B.S. in Mathematics, 1996, Boğaziçi University

Professor Alkan’s teaching interests are analytic number theory and developing new strategies for teaching undergraduate level math courses. His recent research focuses on the areas of number theory and any kind of interaction of number theory with other disciplines.

SELECTED PUBLICATIONS
Nonvanishing of Fourier coefficients of modular forms, Proceedings of American Mathematical Society, 131, (2003), no. 6, 1673-1680
On the size of gaps in the Fourier expansion of modular forms, Canadian Journal of Mathematics, 57, (2005), no. 3, 449-470
Davenport constant for finite abelian groups, Indagationes Mathematicae, 19, (2008), no. 1, 1-21
(with Maosheng Xiong and Alexandru Zaharescu) Quotients of values of the Dedekind eta function, Mathematische Annalen, 342, (2008), no. 1, 157-176

GRANTS and CONSULTING
Tübitak Career Award, Research Grant 2008-2010, “Poisson summation type formulas for meromorphic functions with applications to modular forms and infinite series identities”

PROFESSIONAL EXPERIENCE
Academic
Assistant Professor of Mathematics, 2006-Present, Koç University
J. L. Doob Research Assistant Professor of Mathematics, 2003-2006, at University of Illinois at Urbana-Champaign
Research Assistant of Mathematics, 2002-2003, University of Wisconsin at Madison
Teaching Assistant of Mathematics, 1997-2002, University of Wisconsin at Madison
Teaching Assistant of Mathematics, 1996-1997, Boğaziçi University

HONORS and AWARDS
Bronze Medal winner at the International Mathematical Olympiad, 1991, Sweden
Class valedictorian, 1996, Boğaziçi University
Excellence in Teaching Award, 2002, University of Wisconsin at Madison
Excellence in Research Award, 2003, University of Wisconsin at Madison
Turkish Academy of Sciences (TÜBA) Distinguished Young Scholar Award, 2008
Ph.D. in Applied Mechanics, from Princeton University, 1969, Dipl. Ing. in Civil Engineering, Istanbul Technical University, 1966

Professor Aşkar teaches courses in Applied Mathematics, Differential Equations and Numerical Analysis. His recent research focuses scattering of classical and quantum waves; wavelet analysis and molecular dynamics, nonlinear differential equations.

SELECTED PUBLICATIONS


“Bohmian representation of the Nonlinear Schrödinger and Davey-Stuurdson equations” A. Aşkar, manuscript, 2010

PROFESSIONAL EXPERIENCE

Academic
Professor of Applied Mathematics, Koç University, 2009 September - present
President, Koç University, 2001-2009 August
Provost, Koç University, 1998-2001
Dean of the College of Arts and Sciences, Koç University, 1993-1998

Professor of Mathematics, Koç University, 1993- present
Professor of Mathematics, Boğaziçi University, 1972-1993
Research fellow, Tübitak (National Scientific and Technological Council of Turkey), 1971-1972
Research Associate, Brown University, 1969-1971

Visiting Academic Positions
Professeur Associé, Paris University, 1980 (Spring semester)
Visiting Scholar, Max-Planck Institute in Göttingen, 1981 (Fall semester)
Visiting Professor, Royal Institute of Technology in Stockholm, 1985 (Fall semester)

HONORS and AWARDS
Tübitak’s Young Scientist Award (Teşvik Ödülü), 1973
Turkish Ministry of Culture’s the Information Age Award, 1990
Tübitak’s Science Award, 1993

MEMBER
National Academy of Sciences of Turkey, 1995 to present
Center for Excellence in Education, Washington, 2007 to present
Advisory Board, Near Eastern Studies at Princeton University, 2008 to present
Global Relations Forum (Global İlişkiler Forumu), 2009 to present
PhD Princeton University, 2007; MS & BS Bilkent University, 1998, 2000

Professor Özgür Birer teaches general chemistry, physical chemistry, quantum physics, and spectroscopy. His recent research focuses on surface-biomolecules interactions, spectroscopy, sonochemistry, characterization of nanomaterials.

SELECTED PUBLICATIONS
Gutberlet A.; Birer Ö.; Poerschke T.; Havenith M.; “High Resolution Infrared Spectroscopy of the Asymmetric C-H Stretch of 1,2,4,5-Tetracyanobenzene (TCNB) And (TCNB)2 In Superfluid Helium Nanodroplets” J. Chem. Phys. 2008, 129, 174311

GRANTS and CONSULTING
TÜBİTAK 108T857: Development of metaloxide surfaces for surface plasmon resonance applications and real time monitoring of protein-surface interactions.

PROFESSIONAL EXPERIENCE
Academic
Assistant Professor of Chemistry, Koç University, 2008-present
Post-Doc, Ruhr Univeristsaet-Bochum, 2007-2008
Pre-Post-Doc, University of Virginia, 2007

MEMBER
Deutsche Physikalische Gemeinschaft
KAZIM BÜYÜKBODUK
Assistant Professor of Mathematics

SELECTED PUBLICATIONS
Kolyvagin systems of Stark units. Journal für die Reine und Angewandte Mathematik, 631 (2009), 85-107
$\Lambda$-adic Kolyvagin systems. Submitted to IMRN, 2008

GRANTS and CONSULTING
EU-FP7 International Reintegration Grant, 2008-2012 (Iwasawa Theory of Galois Representations)
TÜBİTAK-Kariyer Grant 2010-2012 (Galois Tensillerinin Deformasyonları, Bloch-Kato Sanıları Ve Euler Sistemleri)

PROFESSIONAL EXPERIENCE
Academic
2009-Present: Assistant Professor of Mathematics, Koç University
2008-2009: Postdoc, MPI Bonn

2007-2008: William Hodge Postdoctoral Fellow, IHES, Paris
2002-2007: Research and Teaching Assistant, Stanford University

HONORS and AWARDS
William Hodge Fellowship (Awarded to one recent Ph.D.), 2008, Institut de Hautes Etudes Scientifique
Silver medal, International Mathematical Olympiad, 1998, Taipei/Taiwan
Gold medal and Sema Yazar Special Prize (For highest score), National Mathematical Olympiad, 1997, Ankara

MEMBER
American Mathematical Society
Reviewer for Zentralblatt-Math of European Mathematical Society

Ph.D. in Mathematics, 2007, Stanford University, B.S. in Mathematics, awarded by Bilkent University, 2002

Dr. Kazım Büyükboduk teaches freshman calculus, linear algebra, algebra, number theory, algebraic number theory, complex analysis, algebraic geometry, topology, real and functional analysis. His recent research focuses on bloch-kato conjectures and related themes, with an emphasis on the Euler / Kolyvagin system machinery. Most recently, Dr. Büyükboduk developed a theory of Euler systems of higher rank, which he already applied to prove important results towards conjectures known as “Gras’ conjectures” and “Main conjectures for totally real fields”
Ph.D. in Applied Mathematics and Statistics, Johns Hopkins University, 2004; MSE in Mathematical Sciences, Johns Hopkins University, 2002; M.S. in Statistics, Oklahoma State University, 2000; B.S. in Mathematics, Koç University, 1997

Professor Ceyhan teaches statistics, probability, calculus, linear models, graph theory, combinatorics. His recent research focuses on the areas of probabilistic inference; spatial statistics, mostly on nearest neighbor methods and multi-class spatial patterns of segregation and association; pattern recognition; random graphs and digraphs; statistical depth; medical image analysis (pertaining morphometric changes in tissues due to a disease); linear models; computationally intensive methods: bootstrap and randomization; computational statistics; statistical inference for high dimensional data.

SELECTED PUBLICATIONS

E. Ceyhan, Class-Specific Tests of Segregation Based on Nearest Neighbor Contingency Tables. Statistica Neerlandica, 63(2):149-182(34), 2009

GRANTS

TÜBİTAK (Turkish Scientific and Technological Research Council) Kariyer Grant # 107T647, February 2008 - February 2011

HONORS and AWARDS

The Second Best Oral Presentation Award at the 30. National Radiology Congress, Antalya, Turkey, November 4-9, 2009
European Science Foundation (ESF) scholarship for the IASC-ERS Summer school “Computational Aspects in Environmental Statistics”, Pamporovo, Bulgaria, 2009
Funding Award for 57th Session of the International Statistical Institute Durban, South Africa, 2009
Abel Wolman Fellowship, The Johns Hopkins University, 2000 - 2001

PROFESSIONAL EXPERIENCE

Academic
Assistant Professor of Mathematics, 2005 Fall-Present, Koç University
Post-doctoral Fellow, 2004 June-2005 August, Center for Imaging Science, Johns Hopkins University
Teaching Assistant, 2001 Fall, Johns Hopkins University
Research Assistant, 2000-2004, The Johns Hopkins University, Baltimore
Instructor, 1999 – 2000, Statistics Department, Oklahoma State University
Teaching Assistant, 1998 - 2000. Statistics Department, Oklahoma State University

Visiting Academic Positions
Visiting Scholar, 2007 Summer, Center for Bioengineering, BAMM Labs: Bio-Acoustic-MEMS in Medicine, Harvard-MIT Health Science and Technology, Harvard Medical School, Brigham and Women’s Hospital

MEMBER
TMD (Turkish Mathematical Society), 2007 - Present
AMS (American Mathematical Society), 2007 - Present
IASC-ISI (The International Association for Statistical Computing-A Section of the International Statistical Institute), 2007 - Present
IMS (Institute of Mathematical Statistics), 2003 - Present
ASA (American Statistical Association), 1999 - 2004
Phi Kappa Phi Honor Society, 1999 -2005, 2008 - Present
Professor Coşkunüzer's teaching interests are geometry and topology. His recent research focuses on minimal surfaces and geometric topology.

SELECTED PUBLICATIONS
Foliations of Hyperbolic Space by CMC Hypersurfaces, to appear in IMRN
Generic Uniqueness of Least Area Planes, Geometry & Topology 10 (2006) 401-412

GRANTS
NSF Topology Research Grant (2006-08) Asymptotic Plateau Problem in Hyperbolic Space
TÜBİTAK Career Research Grant (2008-10) Least Area Planes in Hyperbolic Space
EU - FP7 Marie Curie Research Grant (2008-12) Minimal Surfaces in 3-manifolds
TÜBİTAK 1001 Research Grant (2010-13) Geometric Topology Methods in Minimal Surface Theory

PROFESSIONAL EXPERIENCE
Academic
Assistant Professor, Koç University, 2007-present
Gibbs Assistant Professor, Yale University, 2004-2007
Teaching Asst. & Instructor, Princeton University, 2001-2004
Teaching Assistant, Caltech, 1999-2001

HONORS and AWARDS
Distinguished Young Scholar Award, Turkish Academy of Sciences, 2009
ÜAK Associate Prof. Degree, 2009
Sedat Simavi Science Award, 2009

MEMBER
American Mathematical Society
Turkish Mathematical Society
MINE ÇAĞLAR
Associate Professor of Mathematics

STOCHASTIC PROCESSES
PROBABILITY


Professor Çağlar teaches courses in mathematics; in particular, probability, stochastic processes, statistics, linear algebra, calculus and numerical analysis. Her recent research focuses on the areas of stochastic flows, mathematics of finance, data traffic and information dissemination in telecommunications.

SELECTED PUBLICATIONS

GRANTS and CONSULTING
TÜBİTAK, 2010-2012, Novel Stochastic Processes for Stock Prices and their Limits

PROFESSIONAL EXPERIENCE
Academic
Associate Professor of Mathematics, Koç University, 2006-Present
Assistant Professor of Mathematics, Koç University, 1999-2006

Industry Experience

HONORS and AWARDS
Selected for Who is Who in the World, 2009
Selected for Who is Who in Science and Engineering, 2007
Mustafa Parlar Research Award, METU Prof. Mustafa Parlar Foundation, 2005
Sigma Xi, The Scientific Research Society, Member since 1994

MEMBER
The Bernoulli Society
ISI
Ph.D. in Physics, University of Illinois, Urbana-Champaign, 1996; M.S. in Physics, University of Illinois, Urbana-Champaign, 1991; B.S. in Electrical Engineering and in Physics, Boğaziçi University, 1989

Professor Demirel teaches general chemistry; quantum mechanics (atomic & molecular structure); instrumental analysis (spectroscopy, chromatography, thermal analysis, electrochemistry, microscopy); physical chemistry and surface physical chemistry. His recent research focuses on functional surfaces and self-organization of polymers and polypeptides.

SELECTED PUBLICATIONS

GRANTS and CONSULTING
“Interfacial Crystallization of Polypropylene”, A.L. Demirel, funded by FIAT
“US-Turkey Cooperative Research: Polymer Fillers and the Role of Interfacial Rheology”, A.L. Demirel and S. Granick, funded by U. S. National Science Foundation & TÜBİTAK
“PHOREMOST (Nanophotonics to realize Molecular Scale Technologies)” - Network of Excellence for EU-FP6 (successfully completed 2nd stage of evaluation in March 2004)
“Multi-functional Surfaces, A. L. Demirel, Duygu Bayraktaroğlu (Arçelik) funded by TÜBİTAK (2010-2013)

PROFESSIONAL EXPERIENCE
2010-present; Associate Dean of College of Sciences
June 2008-present, Professor, Chemistry Department, Koç University
June 2004-June 2008, Associate Professor, Chemistry
Department, Koç University
September 1997-June 2004, Assistant Professor, Chemistry Department, Koç University
May 1996-August 1997, Postdoctoral Research Associate, FOM Institute for Atomic and Molecular Physics, Amsterdam
August 1992-May 1996, Graduate Research Assistant, Materials Research Laboratory, University of Illinois, Urbana-Champaign
May 1990-August 1992, Graduate Research Assistant, Coordinated Science Laboratory, University of Illinois, Urbana-Champaign

HONORS and AWARDS
December 2006, Associate Member, Turkish Academy of Sciences
June 2003, Koç University, Werner von Siemens Excellence Award
January 2002, TÜBA Young Scientist Award
November 1999, Associate Professorship by Higher Education Council
July 1999, TÜBİTAK Young Scientist Award

MEMBER
European Physical Society
European Materials Research Society
Ph.D. in Theoretical Physics, Middle East Technical University, 1976; B.S. in Physics, 1971, Middle East Technical University

Professor Dereli teaches undergraduate and graduate quantum mechanics, mathematical physics, gravitation and cosmology, physics and basic science. His recent research focuses on the areas of covariant description of electromagnetically polarizable media, rotating charged black holes in braneworld scenarios, models of dark matter with mass-varying sterile neutrinos and accelerons, gravitational waves and energy-momentum quanta, exactly solvable pairing models of interacting bosons, self-dual gauge fields in 8-dimensions

SELECTED PUBLICATIONS


PROFESSIONAL EXPERIENCE

Academic
Director of Graduate School of Sciences & Engineering (2009-Present)

Professor of Physics, Koç University (since 2001)
Professor of Mathematical Physics, Middle East Technical University, 1996-2001
Professor of Applied Mathematics, Middle East Technical University, 1993-1996
Professor of High Energy Physics, Ankara University, 1987-1993

Visiting Academic Positions
Associate Member, ICTP-Trieste, (1985-1990)
SERC Research Associate, Lancaster University, (1979-1981)
Einstein-Memorial-Foundation Fellow, University of Vienna, (1977-1978)
Research Associate, Brandeis University, (1976-1977)
Visiting Scientist, Yale University, (1974-1975)

HONORS and AWARDS
1996 TÜBİTAK Science Prize
1993 Prof. Mustafa Parlar Foundation Science Prize
1989 Sedat Simavi Foundation Science Prize
1982 TÜBİTAK Junior Science Prize

MEMBER
Turkish Academy of Sciences TÜBA (since 1994)
Ph.D. in Cell Biology in Johns Hopkins School of Medicine, 2006; B.S. in Biology in University of Toledo, 1999

Professor Cory Dunn teaches cell biology and genetics. His recent research focuses on mitochondrial biogenesis, mitochondrial DNA, protein quality control.

**SELECTED PUBLICATIONS**


**PROFESSIONAL EXPERIENCE**

**Academic**

Assistant Professor of Molecular Biology and Genetics, Koç University (2009-present)

Postdoctoral Associate, Howard Hughes Medical Institute/ Columbia University (2006-2009)

**HONORS and AWARDS**

National Merit Scholar; National Defense, Science, and Engineering Fellowship Program, Honorable Mention; National Defense, Science, and Engineering Fellowship Program, Honorable Mention; offered the American Cancer Society Postdoctoral Fellowship

**MEMBER**

American Society for Cell Biology (2001-present)
Ph.D. in Neuroscience in Johns Hopkins School of Medicine, 2006; M.S. in Molecular Biology and Genetics, Bilkent University, 1999; B.S. in Molecular Biology and Genetics, Boğaziçi University, 1997

Professor Dunn teaches cell biology, molecular biology, neurobiology. Her recent research focuses on neuronal gene expression regulation, neuron specific alternative splicing.

SELECTED PUBLICATIONS

PROFESSIONAL EXPERIENCE
Academic
Assistant Professor of Molecular Biology and Genetics at Koç University (2009-present)
Postdoctoral Associate at Rockefeller University (2006-2009)

HONORS and AWARDS
Women and Science Postdoctoral Fellowship, Rockefeller University, 2008-2009
First Place Poster Award at Graduate Student Association Poster Session, Johns Hopkins University, 2003
Fellowship for Masters study at Bilkent University, Ankara, Turkey, 1997-1999
Poster Award at “National Cancer Congress,” Turkey, 1999
Travel Award from Bilkent University, Turkey, 1999
Travel Award from “Sema Yazici Youth Foundation,” Turkey, 1998
Fellowship from “The International Association for the Exchange of Students for Technical Experience,” 1996
PhD in Analytical Chemistry, Boğaziçi University, 1994; M.Sc. in Chemistry, Boğaziçi University, 1986; B.Sc in Chemistry, Boğaziçi University, 1982

Professor Haciu teaches general chemistry to Nursing students, general chemistry, analytical chemistry and inorganic chemistry Lab courses. Her recent research focuses on synthesis and characterisation of the properties of self-standing antimicrobial films.

SELECTED PUBLICATIONS

Aguatabay, Naz M.; Tulu M.; Somer M.; Haciu D.; Yilmaz A., “FT-Raman, FT-IR and NMR spectra, vibrational assignments and density functional studies of 1,3-bis(benzimidazol-2-yl)-2-thiapropane ligand and its Zn(II) halide complexes”, STRUCTURAL CHEMISTRY, in press


PROFESSIONAL EXPERIENCE

Academic
1997-present, Instructor of Chemistry, Koç University
1985-1995, Instructor of Chemistry, Boğaziçi University

Industry Experience
1995-1997, Production Manager, Ertek Yalitim Ltd
TOLGA ETGÜ
Associate Professor of Mathematics

Ph.D. in Mathematics, University of California at Berkeley, USA, 2002; M.S. in Mathematics, Middle East Technical University, Ankara, Turkey, 1997; B.S. in Mathematics, Middle East Technical University, Ankara, Turkey, July 1994

Professor Etgü teaches mathematical analysis and topology. His recent research focuses on the areas of low dimensional topology, symplectic and contact topology, Heegaard Floer homology

SELECTED PUBLICATIONS
Elliptic open books on torus bundles over the circle, Geometriae Dedicata, 132 (2008), 53–63
Symplectic tori in rational elliptic surfaces, (with B. Doug Park), Mathematische Annalen, 334 (2006), 679–691
Lagrangian tori in homotopy elliptic surfaces, (with David McKinnon and B. Doug Park), Transactions of the American Mathematical Society, 357 (2005), 3757–3774
Non-isotopic symplectic tori in the same homology class, (with B. Doug Park), Transactions of the American Mathematical Society, 356 (2004), 3739–3750
Lefschetz fibrations, complex structures and Seifert fibrations on $S^1 \times M^3$, Algebraic and Geometric Topology, 1 (2001), 469–489

GRANTS and CONSULTING
TÜBİTAK-CAREER, 2006-2009 “Topology and Geometry of 4 dimensional manifolds”

PROFESSIONAL EXPERIENCE
Academic
March 2008-present, Associate Professor of Mathematics, Koç University
September 2004-February 2008, Assistant Professor of Mathematics, Koç University

September 2002-August 2004, Postdoctoral researcher, McMaster University

Visiting Academic Positions
August 2009-May 2010, Research Member, Mathematical Sciences Research Institute

HONORS and AWARDS
TÜBİTAK Research Encouragement award, 2009
ODTÜ Parlar Foundation Research Encouragement award, 2009
Masatoshi Gunduz Ikeda Science award, 2008
TÜBA-GEBİP award, 2005
NATO Science Programme Fellowship, 1997

MEMBER
American Mathematical Society, 1997-present
Türk Matematik Derneği, 2006-present
KAAN GÜVEN
Associate Professor of Physics

METAMATERIALS AND TRANSFORMATION OPTICS
PLASMONICS, NANO-OPTICS

Ph.D. in Physics, Bilkent University, 1999; M.S. in Physics, Bilkent University, 1995; B.S. in Physics, Bilkent University, 1993

Prof. Güven teaches scientific computation, electromagnetics, solid state physics, statistical physics, general physics. Prof. Güven's research focuses on the areas of transformation optics, metamaterials, photonic crystals, plasmonic structures, involving both experimental and numerical studies. He is conducting theoretical research on many-particle interactions in low-dimensional electron systems.

SELECTED PUBLICATIONS

COMMUNICATION SYSTEMS, 02.2007 – 02.2010, (Principal Investigator)
TÜBİTAK project EEEAG-106E215 “Integration of Optical Monolithic Resonators on Silicon for Photonic Communications,” 09.2009 – 08.2010. (Researcher)

PROFESSIONAL EXPERIENCE
Academic
Department of Physics, Koç University, Assistant Professor, 2.2009 – present
Nanotechnology Research Center, Bilkent University, Research Associate, 10.2002 – 1.2009
Department of Von Klitzing, Max-Planck Institute, Research Associate, 10.1999 – 10.2001
Department of Physics, Bilkent University, Instructor/ 2.1997 – 9.1998

HONORS and AWARDS
TÜBA Young Scientist Award, 2008

MEMBER
Turkish Physical Society
American Physical Society

GRANTS and CONSULTING
TÜBİTAK project EEEAG-106E198 “Development and integration of compact metamaterials for wireless communication systems,” 02.2007 – 02.2010, (Principal Investigator)
TÜBİTAK project EEEAG-106E215 “Integration of Optical Monolithic Resonators on Silicon for Photonic Communications,” 09.2009 – 08.2010. (Researcher)
Ph.D. major in Theoretical Condensed Matter Physics, 2007; Ph.D. minor in Theoretical Physics, Georgia Institute of Technology, 2006; MS in Physics, Georgia Institute of Technology, 2004; BS with high honors, Bilkent University, 2002

Professor Menderes Işkın teaches general physics, classical mechanics, advanced electromagnetism. His recent research focuses on theory of ultracold quantum gases in general, quantum phases of Fermi-Hubbard and Bose-Hubbard models and their realization in optical lattices, superfluid properties of strongly correlated ultracold atomic Fermi and Bose gases, quantum phase transitions and BCS-BEC evolution through a Feshbach resonance, connection between BCS-BEC evolution and high temperature superconductivity, pairing in higher angular momentum (especially p-wave and d-wave) channels, mass and/or population imbalanced superfluidity, two-band (or multi component) superfluidity, rotating Fermi gases, vortices and vortex bound states in fermion superfluids, atomic Fermi gases in lower dimensions, vortex-antivortex lattices in two-dimensional atomic systems, quantum phases of atomic Fermi-Bose mixtures, heteronuclear molecules with long-ranged dipolar interactions, persistent currents in mesoscopic and atomic systems.

**SELECTED PUBLICATIONS**


**PROFESSIONAL EXPERIENCE**

**Academic**

Assistant Professor in Koç University, Sept 2009 - present

Joint Quantum Institute, Atomic Physics Division in National Institute of Standards and Technology (NIST), and Department of Physics in University of Maryland, Gaithersburg, MD 20899-8423.

**HONORS and AWARDS**

**Assistantships/Scholarships**

Full graduate teaching/research assistantship including tuition and monthly stipend for pursuing Ph.D. study, School of Physics, Georgia Institute of Technology, Atlanta, GA (2002 - 2007)

Full undergraduate scholarship including tuition and monthly stipend for pursuing B.S study, Department of Physics, Bilkent University, Ankara, Turkey (1997 - 2002)

**Fellowships**

Gilbert F. Amelio Fellowship for ‘Best achievement in research by a graduate student’, School of Physics, Georgia Institute of Technology, Atlanta, GA (2006-2007)

**MEMBER**

American Physical Society (APS)

Society of Physics Students (SPS)
PhD in Physics, Massachusetts Institute of Technology, 1999; MS in Physics, Bilkent University, 1993; BS in Electrical Engineering, Bilkent University, 1990

Professor Kabakçıoğlu teaches general physics, physics of everyday life, quantum statistical physics, solid state physics, applied mathematics and numerical methods. His recent research focuses on the areas of modeling biological interactions, statistical physics of complex systems and conformational properties of biopolymers.

SELECTED PUBLICATIONS

GRANTS and CONSULTING
TBAG-106T553 (Investigation of the complete genetic regulatory network of the yeast) - Principal Investigator
TBAG-108T553 (Coarse-grained modeling of DNA and investigation of the plasmid structure as a function of temperature) - Investigator

PROFESSIONAL EXPERIENCE

Academic
Assistant Professor at Koç University, Department of Physics, Jan 2005-present.
Postdoctoral fellow at the University of Padova, Department of Physics, Padova, Italy, 2002-2004
Dr. G. Picard Postdoctoral fellow at the Weizmann Institute of Science, Physics of Complex Systems, Rehovot, Israel, 1999-2000

Industry Experience
Design Scientist in InQuira.com, Los Angeles, CA, 2000-2002

MEMBER
TPS - Turkish Physical Society
APS - American Physical Society
ITAP - Inst. for Theoretical and Applied Physics - Organizing Committee
Doctor of Sciences, V.A. Steklov Institute of Mathematics, 1988; Ph.D. in Differential Equations and Mathematical Physics, Institute of Mathematics and Mechanics, Academy of Sciences of Azerbaijan; 1974, M.S. in Mathematics, Azerbaijan State University, Baku, 1971, BS in Mathematics

Professor Kalantarov teaches calculus, linear algebra, applied mathematics, real and complex analysis, applied mathematics, partial differential equations, applied functional analysis. His recent research focuses on the areas of global behavior of solutions to nonlinear evolutionary partial differential equations (global asymptotical stability and instability problems); infinite-dimensional dynamical systems generated by initial boundary value problems for nonlinear partial differential equations; control theory.

SELECTED PUBLICATIONS
Gevrey regularity for the attractor of the 3D Navier-Stokes-Voight equations (with B. Levant and E. S. Titi) Journal of Nonlinear Science, 19 (2009) 133 - 152

EDITORIAL BOARDS
Turkish Journal of Mathematics
TWMS Journal of Pure and Applied Mathematics

GRANTS and CONSULTING
Grant for the project “Initial boundary value problems for the nonlinear Schrödinger equation”, TÜBİTAK, 1996 – 1997
Grant No. 106T337 “Partial Differential Equations in Phase Transitions”, TÜBİTAK, 2006 -2009 (with H.M.Soner)
Grant No. 107T896 “Joint Mathematical Research Net: analysis, geometry and applications”, TÜBİTAK, 2008-2011

PROFESSIONAL EXPERIENCE
Academic
September 2001 – Present Koç University, Professor of Mathematics, Department of Mathematics
February 1993 – August 2001, Hacettepe University, Professor of Mathematics, Department of Mathematics
September 1991-July 1992, Baku State University, Professor of Mathematics (part time), Department of Applied Mathematics
September 1989- July 1991, Azerbaijan Institute of Civil Engineering Baku, Professor of Mathematics (part time), Department of Mathematics
August 1989 –February 1993, Institute of Mathematics and Mechanics, Baku, Head of Department of Partial Differential Equations
April 1984 – February 1993, Institute of Mathematics and Mechanics
Mechanics, Baku, Deputy Director
February 1977-April 1984, Institute of Mathematics and Mechanics, Baku, Senior Scientific Researcher
November 1974 –February 1977, Institute of Mathematics and Mechanics Baku, scientific Researcher

Visiting Academic Positions
July-August 2008, Visiting Professor, University of Tennessee
February - June 2001, Research Associate, Feza Gürsey Institute of Basic Sciences
November 1997, Visiting Professor, Weierstrass Institut für Angewandte Analysis und Stochastic
September 1994, Visiting Professor, Autonomous University of Barcelona
September –December 1992, Visiting Professor, Gazi University
September 1991, Visiting Professor, Universitat Politecnica Barcelona
December 1983, Visiting Professor, K. Weierstrass Institut für Mathematik
September 1975-May 1980, Visiting Researcher, V.A.Steklov Institute of Mathematics

MEMBER
American Mathematical Society
Azerbaijan Mathematical Society
Turkish Mathematical Society
Professor Kiraz teaches general physics, classical mechanics, solid state physics, advanced electromagnetism. His recent research focuses on the areas of optical microcavities, microdroplets on a superhydrophobic surface, optical tweezers, single molecule microscopy, single molecule tracing.

SELECTED PUBLICATIONS

EDITORIAL BOARDS

GRANTS and CONSULTING
TÜBİTAK 105T500 “Applications of High Resolution Fluorescent Microscopy in Chemistry, Biology and Photonics” (Principal Investigator)
TÜBİTAK 107T211 “Single Molecule Tracing in Confined Geometries” (Principal Investigator)
TÜBİTAK 109T734 “Ultrahigh Resolution Optical Spectroscopy of Liquid Microdroplets Standing on a Superhydrophobic Surface Using a Tapered Optical Fiber” (Principal Investigator)
DPT “Quantum Cryptology Laboratory Infrastructure Project” (Researcher)

PROFESSIONAL EXPERIENCE
Academic
2009 – Present, Associate Professor, Dept. of Physics, Koç University
2004 – 2009, Assistant Professor, Dept. of Physics, Koç University
2002 – 2004, Post-Doctoral Researcher, Dept. of Chemistry, Ludwig-Maximilians University, Munich, Germany

HONORS and AWARDS
Alexander von Humboldt Fellowship (2003)
TÜBA-GBİP Award (2006)
Scientific and Technological Research Council of Turkey (TÜBİTAK) Encouragement Award (2008)
FABED Distinguished Young Investigator Research Award (2009)

MEMBER
OSA (Optical Society of America)
Ph.D. in Mathematics, Auburn University, Auburn, Alabama, 2000; M.S. in Mathematics, Boğaziçi University, 1997; B.S. in Mathematics, Boğaziçi University, 1995

Professor Küçükçifçi teaches finite mathematics, calculus, multivariable calculus and linear algebra, abstract algebra, graph theory, combinatorial design theory, special topics in combinatorics. Her recent research focuses on the areas of combinatorics; combinatorial design theory, graph theory.

**SELECTED PUBLICATIONS**


**PROFESSIONAL EXPERIENCE**

**Academic**

February 2007 – present, Associate Professor, Koç University

September 2001 – February 2007, Assistant Professor, Koç University

June 2001 – August 2001, Instructor (Summer School), Boğaziçi University


September 2000 – December 2000, Post-doc, Universita degli Studi di Catania

September 1997 – June 2000, Graduate Teaching Assistant, Auburn University

September 1995 – June 1997, Graduate Teaching Assistant, Boğaziçi University

**HONORS and AWARDS**

Distinguished Young Scholar Award, Turkish Academy of Sciences (2006)

Associate Professorship by Higher Education Council (April 2005)

Merriwether Fellowship, Auburn University (1999-2000)

Graduate Dean’s Award, Auburn University (1998-1999)

**MEMBER**

American Mathematical Society

Institute of Combinatorics and its Applications

Turkish Mathematical Society
Ph.D. in Computer Science and Applied Mathematics, Courant Institute, New York University, 2006; B.S. in Computer Engineering, Middle East Technical University, 2000

Professor Mengi teaches numerical analysis, numerical optimization, linear algebra. His recent research focuses on the optimization and perturbation theory of eigenvalues.

SELECTED PUBLICATIONS
E. Mengi, Locating a nearest matrix with an eigenvalue of prespecified multiplicity, Numerische Mathematik, Accepted subject to minor revision, 2009
D. Kressner and E. Mengi, Structure preserving eigenvalue solvers for robust stability and controllability estimates, 45th IEEE Conference on Decision and Control, S174-S179, 2006

GRANTS and CONSULTING
TÜBİTAK – CAREER GRANT (2009), No: 109T660, Title: Optimization of symmetric eigenvalues and its applications to dynamical systems

PROFESSIONAL EXPERIENCE
Academic
2009-Present: Assistant Professor, Department of Mathematics, Koc University

Visiting Academic Positions
2006-2009: S.E.W. Assistant Professor, Department of Mathematics, University of California at San Diego

HONORS and AWARDS
2008 Householder Award XIII - Honorable Mention for an outstanding dissertation in numerical linear algebra
2007 Leslie Fox Second Prize for the paper on the estimation of the distance to uncontrollability for higher order systems; Leslie Fox Prize is awarded to the researchers under the age of 30 for their contribution to numerical analysis
2007 Janet Fabri Prize - Honorable Mention Courant Institute of Mathematical Sciences, New York University for an outstanding dissertation in computer science
2004 Young Researcher Award in the First International Conference on Continuous Optimization for the paper algorithms for the computation of the pseudo spectral radius and the numerical radius of a matrix

MEMBER
Society for Industrial and Applied Mathematics (SIAM)
ALİ MOSTAFAZADEH
Professor of Mathematics

MATHEMATICAL PHYSICS

Ph.D. in Physics, The University of Texas at Austin, Austin, 1994; B.S. in Physics & Mathematics, Boğaziçi University, 1989

Professor Mostafazadeh teaches applied and pure mathematics and theoretical physics. His recent research focuses on the areas of differential geometric and topological methods in theoretical physics, quantum mechanics, quantum cosmology, super symmetry and its generalizations, pseudo-Hermitian Hamiltonians.

SELECTED PUBLICATIONS

EDITORIAL BOARDS
Member of the editorial board of the International Journal of Geometric Methods in Modern Physics (World-Scientific) since 2004

PROFESSIONAL EXPERIENCE
Academic
Professor, Department of Mathematics, Koç University, 2004-present
Associate Professor, Department of Mathematics, Koç University, 1999-2004
Assistant Professor, Department of Mathematics, Koç University, 1997-1999
Killam Postdoctoral Fellow, Department of Physics, University of Alberta, 1996-1997
Assistant Professor, Department of Physics, Sharif University of Technology, and Research Associate, Institute for Studies in Theoretical Physics and Mathematics (IPM), Tehran, 1995
Killam Postdoctoral Fellow, Department of Physics, University of Alberta, June-November, 1994
Graduate Student, Teaching and Research Assistant, Department of Physics, The University of Texas at Austin, 1989-94

HONORS and AWARDS
Killam Postdoctoral Fellowship Award, University of Alberta, Edmonton, 1994
Outstanding Young Scientist Award (Üstün Başarılı Genç Bilim İnsanı Ödülü) of the Turkish Academy of Sciences, 2001
Prof. M. Parlar Research Award ( Araştırma Teşvik Ödülü) of the Middle Eastern Technical University, 2001
Werner von Siemens Excellence Award of Koç University, 2006
Science Award in Basic Sciences (Bilim Ödülü), TÜBİTAK (The Scientific and Technological Research Council of Turkey), 2007

MEMBER
Turkish Academy of Sciences, Principal Member
American Mathematical Society
ÖZGÜR MÜSTECAPLIOĞLU
Associate Professor of Physics

QUANTUM OPTICS

Ph.D. in Physics, Bilkent University, 1999, M.S. in Physics, Bilkent University, 1995, B.S. in Physics, Bilkent University, 1993

Professor Müstecaplioğlu teaches classical mechanics, electromagnetism, statistical physics, calculus, linear algebra. His recent research focuses on the areas of quantum optics, quantum information science and technology, foundations of quantum electrodynamics, atomic, molecular and optical physics, Bose-Einstein condensates, matter waves, optical properties of semiconductors, nonlinear optics.

SELECTED PUBLICATIONS


GRANTS and CONSULTING

DPT, Quantum Cryptography Grant, (2008-2011)
TÜBİTAK, Cold Atom Physics Grant (2009-2012)
“Studies on quantum computations in macroscopic multipartite systems” Istanbul Technical University Research Grant (for co-supervising an ITU Ph.D student) (Istanbul Technical University–Scientific Research Project under project 31192)

PROFESSIONAL EXPERIENCE

Academic

February 2007-present, Associate Professor of Physics, Koç University
2009-2010, Guest Professor, ETH Zurich, Switzerland.
2002-February 2007, Assistant Professor of Physics, Koç University
1999-2002, Post-Doctoral Fellow, Georgia Institute of Technology
1998 Summer, Post-Doctoral Fellow in Atomic, Molecular and Optical Physics Group, University of Toronto
1993-1999, Research and Training Assistant, Department of Physics, Bilkent University

Visiting Academic Positions

August 2009-May 2010, Swiss Federal Institute of Technology (ETH)

HONORS and AWARDS

2009 Mustafa Parlar Foundation Research Award
2007 TÜBİTAK Encouragement Award
2005 Interuniversity Board – University Associate Professor (May, 2005)
Turkish Academy of Sciences, Distinguished Young Scientist (TÜBA-GEBİP) Award (2004-2007),
1995-1999 The Scientific and Technical Research Council of Turkey, Ankara, Turkey, Unified National and International Doctorate Program Fellowship
1993-1999 Bilkent University, Graduate Fellowship
1989-1993 Bilkent University, Undergraduate Fellowship

MEMBER

1995-Present Member, American Physical Society (APS)
2003-Present Member, Turkish Physical Society (TFD)
2003-Present Member, European Physical Society (EPS)
2003-Present Vice President, Optical Committee of Turkey (OCT) – (International Commission for Optics (ICO), Turkey Chapter)
2004-Present Member, The International Society of Optical Engineering (SPIE)
2006-Present Member, Optical Society of America (OSA)
2006-Present Member, Scientific Organizational Board, Institute of Theoretical and Applied Physics, Marmaris, Turkey
BURAK ÖZBAĞCI
Associate Professor of Mathematics

LOW-DIMENSIONAL MANIFOLDS SYMPLECTIC AND CONTACT TOPOLOGY

Ph.D. in Mathematics, University of California at Irvine (UCI)
1999, B.S. in Mathematics, Middle East Technical University, 1993

Professor Özbağcı teaches mathematics. His recent research focuses on the areas of contact three manifolds, Heegaard Floer homology, symplectic four manifolds, Stein fillings, Lefschetz fibrations.

SELECTED PUBLICATIONS

Book
Surgery on contact 3-manifolds and Stein surfaces, (with A. I. Stipsicz), Bolyai Society Mathematical Studies, Vol. 13, Springer 2004

Articles
Invariants of contact structures from open books, (with J. B. Etnyre), Transactions of the American Mathematical Society 360 (6) 2008
Open books and plumbings, (with J. B. Etnyre), International Mathematics Research Notices, Article ID 72710, 2006
Signatures of Lefschetz fibrations, Pacific Journal of Mathematics, 202 (1) 2002
Lefschetz fibrations on compact Stein surfaces, (with S. Akbulut), Geometry & Topology (5) 2001

GRANTS and CONSULTING
Marie Curie International Outgoing Fellowship 2009-2011
TÜBİTAK grant for the project titled “Topology of contact three manifolds” 2007-2011
National Science Foundation--Focused Research Group Grant, Aug 2005-May 2006

PROFESSIONAL EXPERIENCE
Academic
Assistant Professor, Department of Mathematics,

Koç University 2002-February 2007
Associate Professor, Department of Mathematics,
Koç University February 2007-Present

Visiting Academic Positions
Georgia Institute of Technology (Aug 2005-May 2006)
Michigan State University (1999-2002)

HONORS and AWARDS
Masatoshi Gündüz Ikeda Science Award, 2008
ODTÜ M. Parlar Foundation Research Encouragement Award, 2007 Sedat Simavi Science Award 2006
TÜBİTAK-TWAS Science Award for Young Scientists in Developing Countries, 2006
Werner-von-Siemens Excellence Award (Koç University, 2005)
Outstanding Young Scientist Award and Grant by the Turkish Academy of Sciences, 2003-2006

MEMBER
American Mathematical Society
Postdoctoral Research, Harvard Medical School, 2010; PhD. in Cell Biology, Dresden University of Technology, 2005; B.S., Molecular Biology and Genetics, Bilkent University, 2001

Professor Özlü teaches cell biology, molecular biology, genetics, biochemistry, proteomics. Her recent research focuses on the regulation of cell division.

**SELECTED PUBLICATIONS**


Ph.D. in Electrical Engineering, Cornell University, 1994; MS in Electrical Engineering, Cornell University, 1990; BS in Electrical Engineering, Cornell University, 1988

Professor Sennaroğlu teaches photonics and lasers, photonic materials and devices, electromagnetism, classical electrodynamics, fascinating nature of light, classical mechanics, quantum physics, experimental physics, quantum mechanics, and introduction to engineering. His recent research focuses on the development of infrared solid-state lasers, femtosecond lasers, spectroscopy of quantum dots, doped polymers, and glasses.

SELECTED PUBLICATIONS


Books

EDITORIAL BOARDS
Technical Committee Member, Advanced Solid-State Photonics, Denver CO, February 2009
Technical Committee Member, Advanced Solid-State Photonics, Nara Japan, February 2008
Technical Committee Member, Ultrafast Optics, CLEO 2007
Technical Committee Member, Ultrafast Optics, CLEO 2006
Technical Committee Member, Ultrafast Optics, CLEO 2005
Technical Committee Member, Ultrafast Optics, CLEO-Europe 2005
Technical Committee Member, Europhoton Conference on Solid-State and Fiber Lasers (2004)
Member of the Organizing Committee, Turkish Workshop on Photonics (1999-2009)

GRANTS and CONSULTING
'Development of a high-energy, pulsed Cr2+:ZnSe laser amplifier at 2400 nm,' (Tubitak, Project TBAG 108T028, 2008-2011)
'Development of a room-temperature Fe:ZnSe laser,' (Tubitak, 2006)
'Development of Compact High-Energy Femtosecond Lasers,' (Tubitak-NSF, with Massachusetts Institute of Technology, 2005-2007)
'Development of tunable Cr:ZnSe lasers' (Vrije University Brussels, 2004-2006)
m solid-stateµ(3) "Development of a 2.5- laser source" (Tubitak-NSF, with Cornell University 1999-2000)
"Spectroscopic Characterization of New Solid-State Visible Laser Sources Based on Upconversion Processes” (Fiat Foundation, 1998-1999)

PROFESSIONAL EXPERIENCE

Academic
Dean of College of Sciences, 2010-present
Professor, Physics and Electrical-Electronics Engineering, Koç University, November 2004-present
Associate Professor, Physics and Electrical-Electronics Engineering, Koç University, 1999-2004
Assistant Professor, Physics and Electrical-Electronics Engineering, Koç University, 1994-1999

Visiting Academic Positions
Research Laboratory of Electronics, Massachusetts Institute of Technology, (2002-2003 and 2009-2010 academic years, and summers of 2005-2008)
Cornell University, (August 1999, August 2000)
Ben Gurion University, (September 1998)

HONORS and AWARDS
Associate Member, Turkish Academy of Sciences (2005-present)
2002 ICTP/ICO (International Commission for Optics) Award
İTÜ (Istanbul Technical University) Foundation 2001 Technology Award
Werner-von-Siemens Excellence Award (Koç University, 2001)
2001 TÜBA (Turkish Academy of Sciences) Distinguished Young Scientist Award
1998 Tübitak Young Scientist Award
Cornell Materials Science Center graduate research assistantship (1989-1994)
Sage Fellow (1988-1989 academic year)
Sibley Award of Electrical Engineering: (1988)
AMIDEAST Scholar (full undergraduate scholarship, 1984-1988)

MEMBER
Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
Member, Optical Society of America (OSA), International Society for Optical Engineering (SPIE).
Founding Chair of IEEE LEOs (Lasers and Electro-Optics Society) Turkish Chapter (1999-2003)
Vice chair, Optics Committee of Turkey (2001-2003)
Member, Eta Kappa Nu, Tau Beta Pi
Doctor of Philosophy in Applied Physics, Yale University, 1992
Bachelor of Science in Electrical Engineering & Physics, Boğaziçi University, 1987

Professor Serpengüzel teaches introduction to mechanics, electromagnetism, experimental physics, optical spectroscopy, optical microresonators and microcavities, optical and electronic properties of materials, and solid state physics. His recent research in optoelectronics and photonics focuses on microsphere based optoelectronic devices using optical microresonators and microcavities, photonic atoms, silicon photons, and liquid crystals.

SELECTED PUBLICATIONS

EDITORIAL BOARDS
Optics and Photonics News, Optical Society of America (OSA), District of Columbia, USA (2007-present)

GRANTS and CONSULTING
Grants
The Scientific and Technical Research Council of Turkey,
Ankara, Turkey (2001-2003), MISAG-193: “Investigation of the tool, workpiece and chip temperatures in computer numerical control machine tools by a high resolution infrared thermal camera”


Consulting
Austrian NANO Initiative, Austrian Research Promotion Agency (FFG), Vienna, Austria (2005-present)
University Grants Committee, Research Grants Council (CERG), Hong Kong, China (2006-present)
Natural Sciences Research Group, Scientific and Technical Research Council of Turkey (TÜBİTAK), Ankara, Turkey (1995-present)
Electrical and Electronics Engineering Research Group, Scientific and Technical Research Council of Turkey (TÜBİTAK), Ankara, Turkey (2009-present)

PROFESSIONAL EXPERIENCE

Academic
Professor of Physics, Koç University, 2006-present,
Associate Professor of Physics, Koç University, 2001-2006
Assistant Professor of Physics, Bilkent University, 1995-1999
Postdoctoral Research Associate, Polytechnic University, 1994-1995
Research Associate, Yale University, 1992-1994

Visiting Academic Positions
Visiting Professor - Koç Scholar, Harvard University, Summer 2001, Summer 2004

Industry Experience

HONORS and AWARDS
Fellow, Society of Photo-Optical Instrumentation Engineers (SPIE), Washington, USA, December 2006

Werner von Siemens Excellence Award for Science and Innovation, June 2002
Senior Member, Institute of Electrical and Electronics Engineers (IEEE), New Jersey, USA, October 2000
University Associate Professor of Turkey, Interuniversity Board, Ankara, Turkey, November 1996

MEMBER
American Association of Aerosol Research (AAAR), Ohio, USA
American Physical Society (APS), Maryland, USA
European Optical Society (EOS), Hannover, Germany
European Physical Society (EPS), Mulhouse, France (Turkish National Representative)
Institute of Electrical and Electronics Engineers (IEEE), New Jersey, USA (Senior Member)
IEEE Photonics Society (PS), Turkey Chapter (Past-Vice-President, Founding Member)
Materials Research Society (MRS), Pennsylvania, USA
Optical Committee of Turkey (OCT), Ankara, Turkey (Past-President, Founding Member)
Optical Society of America (OSA), District of Columbia, USA (Active)
Sigma Xi (SX), The Scientific Research Society, North Carolina, USA
Societe Française d’Optique (SFO), Orsay, France
Society of Automotive Engineers (SAE), Pennsylvania, USA
Society of Photo-Optical Instrumentation Engineers (SPIE), Washington, USA (Fellow)
MEHMET SUAT SOMER
Professor of Chemistry

SYNTHESIS AND CHARACTERIZATION OF: TERNARY BORON NITRIDES, POLAR INTERMETALLIC COMPOUNDS (ZINTL PHASES), CLUSTER COMPOUNDS, NANO AND MESO SCALED RARE EARTH OXIDES, SOLID HYDROGEN STORAGE MATERIALS
AREAS OF SOLID STATE CHEMISTRY
VIBRATIONAL SPECTROSCOPY

SYNTHESIS METHODS: HIGH TEMPERATURE SYNTHESIS (UP TO 1500 °C), HYDROTHERMAL SYNTHESIS, SYNTHESIS IN LIQUID AMMONIA, SOL–GEL PROCESSES
CHARACTERIZATION METHODS: XRD FOR POWDER AND SINGLE CRYSTALS, FT RAMAN SPECTROSCOPY, FT–IR/FIR SPECTROSCOPY (4000–100 CM–1), THERMAL ANALYSIS (DTA/TG)

PhD in Inorganic Chemistry, Technical University of Clausthal, 1979, MS in Chemistry, Technical University of Clausthal, Germany, 1974

Professor Somer teaches inorganic chemistry, analytic chemistry, science lecture, solid state chemistry, symmetry and vibrational spectroscopy, structure of materials, vibrational spectroscopy. His recent research focuses on the areas of synthesis and characterization of: ternary boron nitrides, polar intermetallic compounds (zintl phases), cluster compounds, nano and meso scaled rare earth oxides, solid hydrogen storage materials.

SELECTED PUBLICATIONS
PROFESSIONAL EXPERIENCE
Academic
November 2004-present, Professor, Koç University
1998-November 2004, Associate Professor, Koç University
1994-1998, Privat Dozent at the Technical University of Clausthal

MEMBER
Gesellschaft Deutscher Chemiker (GDCh)
ALİ ÜLGER
Professor of Mathematics

FUNCTIONAL ANALYSIS

Ph.D. in Nonlinear Analysis, at University of Besançon, 1976; M. S. in Nonlinear Analysis, University of Besançon, 1973; B.S. in Mathematics, University of Besançon, 1972

Professor Ülger teaches analysis. His recent research focuses on the areas of abstract harmonic analysis, Banach algebras, geometry of Banach spaces.

SELECTED PUBLICATIONS

Weak compactness in $L^1(m,X)$, Proc. Amer. Math. Soc. 113 (1991), 143-149

Continuous linear operators on $C(K,X)$ and pointwise weakly precompact subsets of $C(K,X)$, Math. Proc. Camb. Phil. Soc. 111 (1992), 143-150


Some results about the spectrum of commutative Banach algebras under weak topology and applications, Monaths. Für Math. 121 (1996), 353-379

A characterization of the closed unitals of the Fourier-Stieljes algebra $B(G)$ of a locally compact amenable group $G$, Jour. Functional Analysis, 205 (2003), 90-106

PROFESSIONAL EXPERIENCE

Academic
1978-79: Assistant Professor of Mathematics, Hacettepe University
1979-1983: Assistant Professor of Mathematics, Boğaziçi University
1983-1988: Associate Professor of Mathematics, Boğaziçi University
1988-1996: Professor of Mathematics, Boğaziçi University
1996-present: Professor of Mathematics, Koç University.

Visiting Academic Positions
1992-1993 Visiting Professor, Bilkent University
1989-1990 Visiting Professor, Arkansas State University

HONORS and AWARDS
1988 Sedat Simavi Vakfı Science Price
1995 TÜBİTAK Science Price

MEMBER
Member of The Turkish Academy of Sciences (1977)
Turkish Mathematical Society (Vice President)
American Mathematical Society.
Ph.D. in Applied Chemistry and Biochemistry, Kumamoto University, Japan, 2004; M.Sc. Materials Science and Engineering, İzmir Institute of Technology, 1999; B.Sc. in Chemical Engineering, Ege University, 1996

Professor Ünal’s teaching interests are inorganic chemistry and electrochemistry. His research interests are inorganic layered materials and their applications in electrochemical, photochemical and catalytic applications. He is also interested in the synthesis of the advanced ceramics.

SELECTED PUBLICATIONS


Uğur Ünal, Shintaro Ida, Kenji Shimogawa, Ozge Altuntasoglu, Kazuyoshi Izawa, Chikako Ogata, Taishi Inoue and Yasumichi Matsumoto, “Electrochemical behavior of Ag+ intercalated layered oxides”, Journal of
PhD. in Mathematics, University of California-Berkeley, 2003; BSc. in Mathematics, Middle East Technical University, 1997

Professor Ünver teaches Mathematics. His recent research focuses on the areas of arithmetical algebraic geometry, more specifically: p-adic multi-zeta values; polylogarithms; motivic fundamental groups of curves; geometric ramification theory; Arakelov geometry.

SELECTED PUBLICATIONS
- On the local unipotent fundamental group scheme. To appear in Canadian Mathematical Bulletin
- Swan conductors and torsion in the logarithmic de Rham complex. To appear in Turkish Journal of Mathematics.
- On the purely irregular fundamental group. To appear in Mathematische Nachrichten
- Drinfel’d-Ihara relations for the crystalline frobenius

PROFESSIONAL EXPERIENCE
Academic
Fall 2006-present, Assistant Professor of Mathematics, Koç University
Fall 2003-2006, L. E. Dickson instructor. Department of Mathematics, University of Chicago

Visiting Academic Positions
Summer, 2004, IHES, Bures-sur-Yvette, France

HONORS AND AWARDS
Charles B. Morrey Jr. Prize, 1999 (Berkeley Mathematics Department Prize)
EMİNE ŞULE YAZICI
Assistant Professor of Mathematics

COMBINATORICS

Phd. Auburn University Discrete and Statistical Sciences Department, 2003; B.Sc. Boğaziçi University Mathematics Department, 2000

Professor Yazıcı teaches abstract mathematics and algebra. Her recent research focuses on the areas of combinatorics, design theory and computational mathematics.

SELECTED PUBLICATIONS

C. C. Lindner and E. Ş. Yazıcı, “The triangle intersection problem for kite systems”, Ars Combinatoria, 75 (2005), 225-231

GRANTS and CONSULTING


PROFESSIONAL EXPERIENCE

Academic
Assistant Professor of Mathematics, Sep 2005-present, Koç University
Post-Doctoral Research Fellow, July 2004- Jun 2005, University of Queensland, Australia
Post Doctoral Position, August 2003- May 2004, Auburn University, Auburn, AL, USA

COMPUTATIONAL MATHEMATICS

Graduate Teaching Assistant, Aug 2000-Aug 2003, Auburn University, Auburn, AL, USA

HONORS and AWARDS
Ethel Raybould Visiting Academic Fellowship of 2007, The University Of Queensland

MEMBER
Turkish Mathematical Society
Institute of Combinatorics and Its Applications
American Mathematical Society
Combinational Mathematics Society of Australasia

EMİNE ŞULE YAZICI
Assistant Professor of Mathematics
Emel Yılgör teaches physical chemistry, organic chemistry and graduate program polymer laboratories. She also coordinates and supervises polymer research laboratories. Her expertise and recent research focuses on structural, thermal and physicochemical characterization of reactive oligomers and polymers, utilization of reactive oligomers for the preparation block and segmented multiphase copolymers, process optimization and scale-up for the production of specialty, solvent-based polyurethanes, investigation of the structure-property relationships of multiphase polymers, melt processing, compounding and modification of thermoplastic polymers in a twin-screw extruder. Process development for direct polymerization using a twin-screw extruder, investigating of the influence of hydrogen bonding on the thermal and mechanical behavior of polymeric materials, preparation and characterization of antibacterial polymeric systems and composites, electrospinning of polymeric biomaterials, synthesis and characterization of hyperbranched polymers through step-growth polymerization.

SELECTED PUBLICATIONS


“Informal undergraduate polymer research program at Koç University Chemistry Department” İ. Yılgör and E. Yılgör, Polymer Reviews, 48(4), 633-641 (2008)


GRANTS and CONSULTING

MSB – Development of waterproof, moisture vapor permeable membranes and coated fabrics

FIAT – Development of directly paintable polyolefins

NYLSTAR – Development of permanently water repellent polyamide fibers

STEVENS INST. TECH. – Analysis of medical polyurethanes

WACKER CHEMIE – Preparation of high performance silicone-urea copolymers
PROCTER and GAMBLE COMPANY – Development of novel additives for fabric treatment
E. Yılgör has been a consultant to various international companies on polymer science and technology

PATENTS

PROFESSIONAL EXPERIENCE
Academic
October, 1994 – Present Instructor, Koc University
July 1980 - August 1985 Research Specialist, Virginia Polytechnic Institute and State University Blacksburg

Industrial Experience
July 1987 - January 1989 Production Manager, Polymer Division, Thoratec Laboratories Corporation Berkeley
August 1985 - July 1987 Associate Scientist, Mercor Incorporated Berkeley
May 1979 - March 1980 Chemical Engineer, Kurt&Kurt AŞ

MEMBER
American Chemical Society (ACS)
ACS Polymer Division and
ACS Polymeric Materials Science and Engineering Division
Ph.D. in Chemistry, Middle East Technical University (METU), 1977, M. S. in Chemistry, Middle East Technical University (METU), 1974, B. S. in Chemistry, Middle East Technical University (METU), 1972

Professor Yılgör teaches general chemistry, organic chemistry, polymer chemistry, energy and environment, properties of polymers and composites and a special elective course entitled: Science, Innovation and Technology. His recent research focuses on: synthesis and characterization of self-healing elastomers, shape-memory elastomers, preparation and characterization of elastomeric nanocomposites, investigation of hydrogen bonding in polymers and other supramolecular systems, polymeric biomaterials, antimicrobial coatings and wound dressings, design, synthesis and characterization of linear and hyperbranched segmented elastomers, investigation of the structure-property relationships of multiphase polymers.

SELECTED PUBLICATIONS
Electrospinning of Polyurethane Fibers, M. M. Demir, İ. Yılgör, E. Yılgör and B. Erman, Polymer, 43(11), 3303-3309 (2002)
Hydrogen bonding and polyurethane morphology I. Quantum mechanical calculations of hydrogen bond energies and vibrational spectroscopy of model compounds, E. Yılgör, İ. Yılgör and E. Yurtsever, Polymer, 43(24), 6551-6559 (2002)

Structure-morphology-property behavior of segmented thermoplastic polyurethanes and polyureas prepared without chain extenders, İ. Yılgör and E. Yılgör, Polymer Reviews, 47(4), 487-510 (2007)
Influence of polymerization procedure on polymer topology and other structural properties in highly branched polymers obtained by A2+B3 approach, C. Oguz, M. A. Gallivan, S. Cakir, E. Yılgör and İ. Yılgör, Polymer, 49(5), 1414-1424 (2008)

GRANTS and CONSULTING
MSB – Development of waterproof, moisture vapor permeable membranes and coated fabrics
FIAT – Development of directly paintable polyolefins
NYLSTAR – Development of permanently water repellent polyamide fibers
STEVENS INST. TECH. – Analysis of medical polyurethanes
TÜBİTAK – Preparation and structure-property behavior of hyperbranched polyurea elastomers
WACKER CHEMIE – Synthesis and characterization of silicone-urea copolymers
PROCTER and GAMBLE COMPANY – Development of novel additives for fabric treatment
Prof. Yılgör is technical consultant to several major US and European Companies.

PATENTS
“Waterproof, Moisture Vapor Permeable Polymers, Films and


PROFESSIONAL EXPERIENCE

Academic Experience

2010 - present Director, KUYTAM Koç University
October, 1996 – Present Professor of Chemistry, Koç University
October, 1994 – October 1996 Associate Professor of Chemistry, Koç University
January 1983 – August 1985 Director of Polymer Laboratories, VPI&SU Blacksburg
April 1980 – January 1983 Research Associate, VPI&SU, Blacksburg
March 1979 – September 1982 Assistant Professor, Chemistry Department, METU
March 1978 – March 1979 Instructor, Chemistry Department, METU
November 1972 – March 1978 Teaching Assistant, Chemistry Department, METU

Visiting Academic Positions

August 1988 Caulfield Inst. Tech., Melbourne
July - September 1997 EPFL, Lausanne
October 2003 – October 2004 Virginia Tech, Blacksburg

Industrial Experience

January 1989 – October 1994 Vice President R&D, Goldschmidt Chem. Corp., Hopewell,
August 1985 – January 1989 Vice President and Director, Thoratec Labs. Corp., Berkeley,

HONORS and AWARDS

Member of TÜBİTAK Science Board, 2009 - Present
Editorial Board Member of SILICON, 2009 - Present
TÜBİTAK Achievement Award in Science (Bilim Ödülü), 2003
Siemens Award for Excellence in Science and Technology, 2000
EPFL, Lausanne, CH, Invited Professor, 1997
Australian Government Scholarship, Visiting Professor, Melbourne, 1988

MEMBER

American Chemical Society (ACS)
ACS Polymer Division
ACS Polymeric Materials Science and Engineering Division
ERSİN YURTSEVER
Professor of Chemistry

THEORETICAL CHEMISTRY
QUANTUM CHEMISTRY
STATISTICAL THERMODYNAMICS

Ph.D. in Chemistry, Virginia Commonwealth University, 1976; M. S. in Theoretical Chemistry, Middle East Technical University, 1973; B. S. in Chemistry, Middle East Technical University, 1971

Professor Yurtsever teaches quantum chemistry, thermodynamics, statistical thermodynamics. His recent research focuses on the areas of dynamics and thermodynamics of clusters, quantum mechanical calculations of chemical bonding.

SELECTED PUBLICATIONS

EDITORIAL BOARDS
J. Mathematical Chemistry
Turkish Journal of Chemistry

PROFESSIONAL EXPERIENCE
Academic
2009- 2010, Dean of College of Sciences, Koç University
June 2001- 2009, Dean of College of Arts and Sciences, Koç University

Oct. 1995- present, Professor, Koç University
Jan.1993-Sep 1995, Dean, School of Education, Middle East Technical University
July.1991-Nov.1992, Associate Vice President and Secretary of the Scholarships and Fellowships Program TÜBİTAK
Dec.1988- Sep. 1995, Professor, Middle East Technical University
Jan.1984-Nov.1986, Ass.Chairman., Chemistry Department, Middle East Technical University
Dec.1976-Sep.1980, Researcher, Bielefeld Uni., Germany
June.1973-June.1976, Teaching Assistant, Virginia Commonwealth Uni., USA

Visiting Academic
June1983-Sep.1983, Visiting Instr., Virginia Commonwealth Uni., USA
June.1978-Sep.1978, Visiting Instr., Virginia Commonwealth Uni., USA

HONORS and AWARDS
TÜBİTAK Recognition Award 1983
Sedat Simavi Award 1996

MEMBER
Turkish Academy of Sciences 1994