

Second Circular

Diffusion Fundamentals III

Basic Principles of Theory, Experiment and Application

August 23rd - 26th, 2009, Athens, Greece

Two years after Diffusion Fundamentals II in L'Aquila, Italy, and as part of the celebration of the 600th anniversary of the foundation of Leipzig University, the cradle of the Diffusion Fundamentals Conference series in 2005, the world-wide community of researchers in the field of diffusion is invited to Athens, Greece, to highlight current developments.

Diffusion Fundamentals III is organized under the auspices of the National Technical University of Athens, the National Centre for Scientific Research "Demokritos", and the University of Leipzig. Again, the conference will consist of invited plenary talks and poster sessions, where both chairmen and plenary speakers are encouraged to refer extensively to the posters relevant for their session. Following the tradition, a Conference Volume with local paintings by Taro Ito will be issued. Simultaneously, all conference contributions shall be available electronically via the Diffusion Fundamentals Online Journal.

The scientific programme includes invited **plenary talks**, covering those topics of diffusion theory, experiment and application, which are in the focus of current research. The talks will address a broad interdisciplinary audience within the wide-stretching field of diffusion, including the presentation of:

- Diffusion in Nanostructured Solids, Nanoporous Materials, Polymers and Living Cells
- Diffusion Analogues in Social Sciences and Ecology,
- Multiscale Simulation of Mass Transfer Phenomena,
- Novel Insights by Novel Measuring Techniques .

List of Speakers and tentative titles of their talks:

Christoph Bräuchle (München):	Exploring Diffusional Behaviour in Nanostructured Systems with Single Molecule Probes: From Nanoporous Materials to Living Cells
Dirk Brockmann (Evanston):	The Scaling Laws of Human Travel - From Money Dispersal to Global Disease Dynamics
Mark Conradi (St. Louis):	Diffusion of helium-3 gas in lungs: Understanding lung structure and disease
Denis Evans (Canberra):	A simple mathematical proof of Boltzmann's equal probability hypothesis
Benny Freeman (Austin):	Diffusion-Controlled Gas Separation Using Polymers
Ulrich Gösele (Halle):	Nanoscale Kirkendall Effect and Beyond
Keith Gubbins (North Carolina):	Transition from Single-File to Fickian Diffusion in Carbon Nanotube and Nanotube Bundles: Pure Components and Mixtures
Paul Heitjans (Hannover):	Mobile Ions in Nanocrystalline and Amorphous Solids
Jörg Kärger (Leipzig):	The wealth of information from transient guest profiles
Walter Kob (Montpellier):	Diffusion processes in Glass-Forming Systems
Klaus Kroy (Leipzig):	Rheological redundancy and universality – From polymers to living cells
Graeme E. Murch (Newcastle):	Diffusion Kinetics in Hollow and Core/Shell Nanoparticles

Alex Neimark (Piscataway):	Multiscale simulation of perm-selective polyelectrolyte membranes
John H. Petropoulos (Athens):	Beyond Fick: How best to deal with non-Fickian behaviour in a Fickian spirit
Douglas M. Ruthven (Orono):	Diffusion through Porous Media: Ultrafiltration, Membrane Permeation and Molecular Sieving
Michael Saxton (Davis):	Single-particle tracking: Connecting the dots
Randy Snurr (Evanston):	Molecular simulation of diffusion in nanoporous metal-organic frameworks
Ulrich W. Suter (Zürich):	Mechanisms and Predictability: Why Fundamentals Matter
James Steele (London):	Diffusion models in anthropology: population spread and cultural contact

The following chairmen have accepted our invitation:

Thomas Franosch (München)	Philip Kuchel (Sydney)	Helmut Mehrer (Münster)
William S. Price (Sydney)	Gunter Schütz (Jülich)	Gero Vogl (Vienna)

Each group of plenary talks shall be accompanied by **poster sessions**. Ideally, the contributions to the poster sessions should be related to the various aspects covered in the plenary talks. Correspondingly, the plenary speakers and the chairpersons of the sessions shall be asked to serve as first reviewers of the poster submissions and shall be encouraged to refer to individual posters during their presentations, whenever appropriate.

Location

With its rich cultural heritage, impressive monuments, and charming natural landscape, the city of Athens is an ideal venue for a conference in August ([photos](#)). The conference will take place in the Emmantina Hotel (www.emmantina.gr), in Glyfada, by the coast of the Saronic Gulf. Conferees will be housed in the Emmantina and nearby Palmyra Beach (www.palmyra.gr) hotels, in a quiet seaside location easily accessible from the bustling centre of Athens by bus and tram and from the Athens airport by bus (click for [bird's eye view of the location by Google maps](#)).

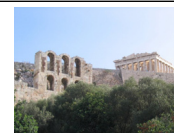
Fees, Payment and Registration

The participation fee for **early registration** (till April 15th, 2009) is **350,- €**, for late registration (till August 1st, 2009) it is 400,- €. The reduced fee for students is 200,- € (early registration) and 250,- €, respectively. For registration, please fill out the [registration form](#). We will send you a confirmation of your registration via Email after receiving your fee on our bank account.

The conference fee comprises the Conference Book, catering during the conference and the social programme, including the welcome buffet on Sunday, August 23rd, the Gala dinner and the excursion to *Sounion*.

The price for **accompanying persons** is **150,- €**, (200,- € for late registration), including participation on welcome party, gala dinner and the excursion to *Sounion*.

Cancellations: If a cancellation request is received before July 1st, 2009, 75% of the amount paid will be refunded. No refund will be possible after July 1st, 2009. Please address all requests for cancellations to doros@central.ntua.gr.



Accommodation

We recommend the participants to book their accommodation in one of the conference hotels, Emmantina (www.emmantina.gr) or the nearby Palmyra Beach (www.palmyra.gr) hotel. The following daily rates (including breakfast) have been agreed with the conference hotels for participants of Diffusion Fundamentals III:

Hotel	Single	Double	Triple	Contact
Emmantina ****	81,- €	92,- €	114,- €	phone: +30 210 8980683, fax: +30 210 8948110 email: info@emmantina.gr
Palmyra Beach ****	81,- €	92,- €	114,- €	phone: +30 210 8981183, fax: +30 210 8948110 email: info@palmyra.gr

Important note: Since July 2nd free rooms are available only in the Palmyra Beach hotel. Please don't forget to refer to the Diffusion Fundamentals III conference to benefit from the special conference rate.

Conference Volume

The conference book will include full paper contributions of plenary speakers and sessions' chairmen and the two-page poster abstracts and is complemented by paintings of Athens by the Japanese physicist and artist Taro Ito.

A total of the conference contributions will be published only electronically, as a special volume of the Online-Journal "[Diffusion Fundamentals](#)". This online publication will accomplish the Conference Volume as well as the full paper contributions by poster presenters (see below for details).

Posters

Authors are requested to send their two-page abstracts via the Internet before March 31st, 2009. Accepted abstracts will appear in the conference book.

Please, note that the deadline for last-minutes' poster contributions is August 1st. Last minute submissions will only be published in the special volume of the Online-Journal.

Please, follow the format as given under <http://www.uni-leipzig.de/diffusion/pdf/layout-poster-abstracts.doc> since only in this case the contribution may be included in the Conference Volume and/or the Online-Journal and send your abstract to tomas@uni-leipzig.de.

Full Paper Contributions

Authors of contributions which were accepted as posters of the conference are invited to send full papers before August 1st. Please, follow the instructions given under <http://www.uni-leipzig.de/diffusion/pdf/layout-full-paper-contribution.doc> and send your paper to tomas@uni-leipzig.de. The publication in the special issue of the Online-Journal "[Diffusion Fundamentals](#)" depends on the positive response of the referees.



Important Dates 2009

February 1 st	2 nd circular, abstract submission and registration opened on the web
March 31 st	Deadline for submission of poster abstracts for the conference volume
April 15 th	Registration deadline (early registration fee); Information about acceptance of poster contributions communicated by organizers
August 1 st	Deadline for registration with late dues; deadline for full paper contributions of poster presenters; deadline for last-minutes' poster contributions
August 23 rd - 26 th	Diffusion Fundamentals III

Conference Chairmen: [Christian Chmelik](#), Leipzig; [Nick Kanellopoulos](#), Athens;
[Jörg Kärger](#), Leipzig; [Doros Theodorou](#), Athens

Scientific Committee:

Dezső L. Beke, Debrecen	Stefano Brandani, Edinburgh	Armin Bunde, Giessen
Paul Callaghan, New Zealand	Alan Chadwick, Canterbury	Marc-Olivier Coppens, Delft
Gerhard Ertl, Berlin	Dieter Freude, Leipzig	Farida Grinberg, Jülich
Paul Heitjans, Hannover	Jörg Kärger, Leipzig	Yossi Klafter, Tel Aviv
Alfred Leipertz, Erlangen-Nürnberg	Graeme Murch, Callaghan	Douglas M. Ruthven, Orono
Jean Philibert, Paris	William S. Price, Sydney	Doros Theodorou, Athens
Michael J. Saxton, Davis	Gunter Schütz, Jülich	George H. Weiss, Bethesda
Ipo Vattulainen, Helsinki	Gero Vogl, Vienna	

Organizing Committee Athens: [Nick Kanellopoulos](#), [George Papadopoulos](#), [George Romanos](#),
[Doros Theodorou](#)

Organizing Committee Leipzig: [Christian Chmelik](#), [Tomas Binder](#)

Website: www.diffusion-fundamentals.org

Email: info@diffusion-fundamentals.org

Downloads:

- conference poster: <http://www.uni-leipzig.de/diffusion/pdf/diff-fund-III.pdf> (pdf, 0.2 MB)
- second circular: http://www.uni-leipzig.de/diffusion/pdf/DFIII-2nd_circular.pdf (pdf, 0.4 MB)

