



REACTOR is an ESF-funded scientific programme for the promotion and interchange of research results in the areas of non-linear chemistry and non-linear science. The main emphasis is on the development of fundamental understanding at the molecular level of the processes leading to the formation of spatiotemporal structure and patterns in chemical and biochemical systems.

## **Information and News**

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#### **Information and News**

The last ESF REACTOR workshop "Nonlinear phenomena in chemistry", took place in Budapest, 24-26 January 2003. The lists of talks and presentation slides can be found in [http://www.phy.bme.hu/deps/chem\\_ph/Etc/Reactor2003/reactor2003.html](http://www.phy.bme.hu/deps/chem_ph/Etc/Reactor2003/reactor2003.html).

#### **Meetings**

- The next REACTOR Meeting is scheduled for the first two weeks of September 2004 in Prague.
- Semester in Trieste on Dynamical Systems and Control Theory, ICTP-SISSA, Italy, Sept. 8 - Dec. 7, 2003. [www.sissa.it/fa/am/DCS2003/DCS2003.html](http://www.sissa.it/fa/am/DCS2003/DCS2003.html)
- Dynamics Days 2003, XXIII Annual Conference, 4 decades of chaos 1963-2003 24-27 September, Palma de Mallorca, Spain, <http://www.imedea.uib.es/~ddays>

Dynamics Days is an annual interdisciplinary conference designed to stimulate interactions amongst researchers with interests in dynamical systems, particularly those with nonlinear aspects. Dynamics Days 2003 will take place from Wednesday 23 September to Saturday 27 September, on the campus of the University of the Balearic Islands, Palma de Mallorca, Spain.

Organizers: Oreste Piro (Palma), Julyan Cartwright (Granada)

OPENING SESSION SPEAKER: Edward Lorenz

CONFIRMED INVITED SPEAKERS: Michael Berry, Oriol Bohigas, Leonid Bunimovich, Yves Couder, Pierre Coulet, Theo Geisel, Ray Goldstein, Celso Grebogi, Mogens Jensen, Rafael de la Llave, Marcelo Magnasco, Giorgio Mantica, Igor Mezic, Heinz Georg Schuster, Jorge Tredicce, Angelo Vulpiani.

Apart from the plenary talks by the invited speakers, contributed oral and poster communications by participants are expected to form a large and important part of the meeting. Abstract submissions are therefore enthusiastically encouraged. Most of the accepted oral contributions will be arranged together with the plenary talks in a single session.

Additionally, a part of the conference will be devoted to special minisymposium sessions around common selected themes. These sessions will contain both key note talks and contributions. We anticipate having minisymposia on the following themes, but additional ones may be announced later.

MINISYMPOSIA: Biological systems, Socio- and econodynamics, Quantum chaos, Noise, Chaotic communication, Mixing and fluids, Patterns.

Deadlines for submissions: To be considered for an oral presentation, abstracts must be received by the organizers by 31st July. No limit will be placed on the number of posters.

The registration fee is 250 euros; there is a reduced fee of 150 euros for students.

There is a limited amount of funding available to enable students to attend who could not otherwise afford to do so, especially those from eastern Europe. Details of the funding and how to apply for it are given on the conference Web site - see below.

Accommodation for participants may be booked through the conference Web site.

Online registration and further information can be found on the conference web pages at

<http://www.imedea.uib.es/~ddays>

These pages are being updated as further information is available, so please check them regularly.

## Grants and Positions

I would like to announce that currently we have a doctoral training award for a for a student interested to take up a PhD position to work on a project in Mathematical Chemistry/Biology. The student will be based in London and will work with me in the Department of Mathematics at City University in London, UK. The award is open to any UK or EU citizen with a good first honours degree (or the European equivalent) and covers the full payment of the academic fees (currently £3000/year) and a stipend of £10,000 for living expenses. The project is due to start in October and will run for 3 years. The research interests are centred around the subject of pattern formation theory and its applications (Turing and flow and diffusion distributed patterns or FDS). Major applications of these models are in chemical pattern formation, animal development,

ecology and virus architecture to cite just a few current topics of interest. More details about potential projects and themes are on my web page below. The award holder will join an enthusiastic and very dynamic group formed by some 3 other members of staff and 3 other PhD students. Research interests within the group are in: pattern formation and fluid dynamics, pattern formation with symmetry, nonlinear dynamical systems.

Potential strong candidates should write ASAP with a detailed CV, a short presentation of interest and two references to:

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e-mail [r.a.satnoianu@city.ac.uk](mailto:r.a.satnoianu@city.ac.uk)

web [www.staff.city.ac.uk/~razvan/](http://www.staff.city.ac.uk/~razvan/)

## Publications

A. F. Taylor, Mechanism and phenomenology of an oscillating chemical reaction, *Progress in reaction kinetics and mechanisms*, 27 (4): 247-325 2002.

"Chemical reactions, which are far from equil., are capable of displaying oscillations in species concns. and hence in color, electrode potential, pH and/or temp. The oscillations arise from the interplay between pos. and neg. kinetic feedback. Mechanisms for such reactions are presented, along

with the rich phenomenol. that these systems exhibit, from complex oscillations and chem. waves, to stationary concn. patterns. This review will focus on the Belousov-Zhabotinskii reaction but ref. to other reactions will be made where appropriate."

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#### **REACTOR Web sites:**

[http://www.chem.leeds.ac.uk/People/SKS/esf\\_reactor/esf\\_reactor.htm](http://www.chem.leeds.ac.uk/People/SKS/esf_reactor/esf_reactor.htm)

<http://www.esf.org/reactor/>

<http://www.esf.org>

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Submission of News, Information, Meetings, Grants and Publication Abstracts must be sent by e-mail to [newsreactor@sd.ist.utl.pt](mailto:newsreactor@sd.ist.utl.pt). The received information will be included in the next REACTOR Newsletter. Everyone is encouraged to pass this information to other colleagues outside the REACTOR network.

Previous Newsletters are posted in the REACTOR web

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