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## Physics Computing '94 Explores Innovations in Computational Physics **FREE**

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## Physics Computing '94 Explores Innovations in Computational Physics

Physics Computing '94 (PC '94), the sixth in the annual series of international conferences, will take place August 22-26, 1994, at the Palazzo dei Congressi in Lugano, Switzerland. The purpose of the conference is to bring together researchers interested in innovative approaches to computational physics. Special emphasis will be placed on algorithmic and high-performance computer implementation issues.

PC '94 is jointly organized by the Centro Svizzero di Calcolo Scientifico (CSCS), Manno, Switzerland, which belongs to the Swiss Federal Institute of Technology in Zürich (ETHZ), the European Physical Society (EPS) Interdisciplinary Group on Computational Physics, and the American Physical Society (APS) Division of Computational Physics.

NEC Corporation is sponsor of PC

'94. In 1994, as in previous years, *Computers in Physics* will cosponsor the Physics Computing conference. As its special contribution, this year *Computers in Physics* is publishing the Advanced Program and Guide to the Exhibition. This document will be distributed to all conference preregistrants, and a limited number of copies will be available free of charge for other interested readers (see "How to get a copy of the advance PC '94 program," p. 243). Other cosponsors of PC '94 are ETHZ, EPS, APS, the town of Lugano and the Lugano Tourist Office, Swissair, and Crossair.

In the tradition of past conferences, PC '94 will present a detailed overview of the newest research results and developments in computational methods for academia and industry. Conference chair Ralf Gruber of CSCS says, "We



Lake Lugano promenade and Mt. San Salvatore. Photo courtesy of Swiss National Tourist Office.

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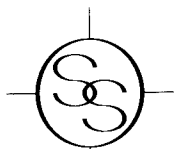
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## Invited speakers and topics at PC '94

- Cellular Automata and Lattice Gases (B. Chopard, Parallel Computing Group, University of Geneva, Switzerland)
- Chaos and Dynamical Systems (V. Demmel, Max Planck Institute, Garching, Germany)
- Climate Modeling (J. Hunt, Weather Office, Bracknell, United Kingdom)
- Electronic Structure of Molecules and Materials (L. Ixaru, Institute of Physics, University of Bucharest, Romania and You Zhou, Physics Institute, University of Zürich, Switzerland)
- Fluids and Turbulence (T. Poinsot, CERFACS, Toulouse, France)
- Industrial Applications (B. Larroutou INRIA, Sophia-Antipolis, France, and P. Sguazzero, IBM ECSEC Center, Rome, Italy)
- Mesoscopic Physics (H. deRaedt, University of Groningen, The Netherlands)
- Molecular Dynamics (W. Andreoni, IBM Research Centre, Rueschlikon, Switzerland, and V. Stepanyuk, Lomonosov State University, Moscow, Russia)
- Monte Carlo and Critical Phenomena (K. Binder, Physics Institute, Johannes Gutenberg University, Mainz, Germany, and I. Morgenstern, Physics Institute, University of Regensburg, Germany)
- Numerical Methods (I.M. Sobol, Institute of Mathematical Modeling, Moscow, Russia, and S. Obara, Department of Chemistry, Kyoto University, Japan)
- Parallel Computation in Physics (K. Bowler, Department of Physics, University of Edinburgh, United Kingdom, and G. Meurant, CEA, Département Mathématiques Appliquées, France)
- Physics Education (C. Rebbi, Physics Department, Boston University, USA)
- Plasmas (U. Schwenn, MPI für Plasma Physik, Garching, Germany)
- Self-Organization and Growth Phenomena (M. Peyrard, Laboratoire de Physique, Ecole Normale Supérieure de Lyon, France, and J. Kertesz, Institute of Physics, Technical University of Budapest, Hungary)

believe in computational physics as a methodology that can extend our knowledge of the world and as an essential tool for design. PC '94 will emphasize general computing approaches, especially the use of modern high-performance machines, and interdisciplinarity."

According to conference organizer Marco Tomassini, a major goal of the conference is to "foster overseas mutual knowledge and collaboration." He notes the organizers' desire to make PC '94 accessible to scientists from Central and Eastern Europe, "to benefit from their skills and as an indirect contribution to the development of their economies and of multilateral relationships."

Tomassini says that PC '94 will offer to U.S. researchers the opportunity to "survey the work of the best European research institutes and industries...and to establish contacts between scientists in the United States and Europe." Among the Advisory Committee members for this year's meeting are David Anderson of the University of California in Livermore and Elaine Oran of

the Naval Research Laboratory in Washington, DC.

The program will include invited and contributed papers arranged in parallel sessions, poster sessions, tutorials, and vendor exhibitions.

About the tutorial sessions, Gruber says, "We hope that a well-chosen set of accessible tutorial lectures will allow less-experienced participants to benefit from the conference." The sessions will be held on the first day of the conference and will last either the entire day or half a day. They will be conducted by experts in the fields of parallel computation, visualization tools and techniques, finite-elements methods, structured and unstructured adaptive grids, wavelets and Fourier analysis, electronic-structure calculations, neural networks, and symbolic computation.

Exhibitors from major companies will display their products at the conference. PC '94 organizers expect the presentations to be similar to those of past conferences. At PC '93, for example, commercial vendors presented data-analysis and graphics software pack-

## How to get a copy of the advance PC '94 program

The organizers of Physics Computing '94 will distribute the Advanced Program and Guide to the Exhibition (APGE) directly to all preregistrants. To make sure that you get a copy promptly in the mail, register for the meeting well in advance.

As a service to our readers, *Computers in Physics* will print a limited number of extra copies of the APGE and make them available free of charge on a first-come, first-serve basis. If you would like one of these copies, send us your name and address, referring to circle number 294. You can do this by postal mail, if you use the Reader Service Card at the back of this magazine, or by telnet, if you log on to CIP Online (see p. 254) and go to item 6 on the screen headed Computers in Physics New Product Bulletin.

ages, complex simulations on a four-processor workstation, and books and other educational materials for computational scientists.

To allow conference-goers to experience Lugano's atmosphere, organizers are planning sightseeing and socializing events: on Monday, a cocktail party, and on Wednesday, dinner and a sightseeing cruise on Lake Lugano (see photo). A concert is also scheduled.

For registration or further information about PC '94, please contact the Conference Secretariat at the following address:

PC '94-Secretariat  
c/o CSCS  
Via Cantonale, Galleria  
CH 6928 Manno (TI)  
(Switzerland)  
tel: +41-91-508211  
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Commercial vendors should also contact the Secretariat at this address for details about the exhibition.

**Rhonda Shearin**

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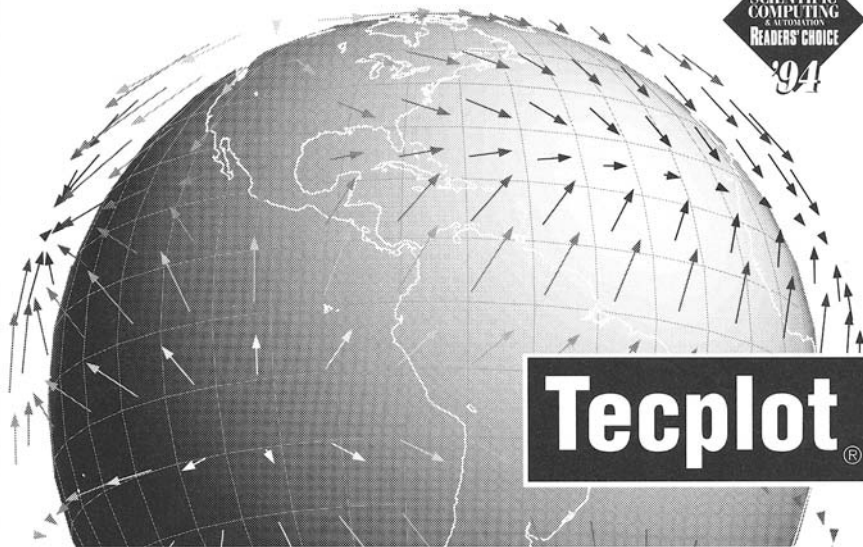
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