MPI 2001 Application Form

q I would like to participate in MPI 2001

q I would like to present a problem at MPI 2001

q I would like more information about MPI 2001

q I am a student and request travel support to attend MPI 2001

Name

Title

Organization

Address

Telephone

Fax

Email

Please return by April 20, 2001, to

Professor Donald Schwendeman
MPI 2001 Organizing Committee
Department of Mathematical Sciences
Rensselaer Polytechnic Institute
Troy, New York 12180

Or register online at http://www.math.rpi.edu

Previous Problems from MPI

The following problems are examples of problems brought to recent workshops. These problems are discussed in detail in previous workshop proceedings. Copies of these reports are available upon request.

- Sintering of Non-uniform Porous Materials, Corning.
- Vapor and Liquid Flow Analysis in Packed Columns, BOC Gases.
- The Design of Hard Drive Slider Bearings, IBM
- The Dynamics of a Roll Press Nip, Albany International.

These problems represent but a small sample of problems discussed at our workshops. The mathematical techniques used to solve these, and other problems at the workshop, include mathematical modeling, nonlinear analysis, numerical analysis and computation, and optimization.

MPI 2001 Web Page

Additional information about MPI 2001 may be found by accessing the MPI home page at http://www.math.rpi.edu.

MPI 2001 Organizing Committee

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Rensselaer

Department of Mathematical Sciences

at

Rensselaer Polytechnic Institute

announces the

Seventeenth Annual Workshop

on

Mathematical Problems in Industry

June 4 - 8, 2001

MPI 2001

About MPI 2001

MPI is a problem solving workshop that attracts leading applied mathematicians and scientists from universities, industry, and national laboratories. During the workshop, engineers and scientists from industry interact with the academic participants on problems of interest to their companies. In the past, these problems have included, but are not limited to

- engineering and product design
- process design and control
- environmental remediation
- scheduling and optimization
- financial modeling

The challenge facing business and industry is to prosper in an era of rapid technological growth. Meeting the challenge requires continually improving productivity, resource management, and innovation, both to refine existing products and processes and to create new ones.

The MPI workshop is a resource that offers

- clarification and formulation of a proposed or existing process
- methods to solve problems of interest to industry
- links with applied mathematicians and scientists from universities and national laboratories
- access to advanced computing solutions and environments
- cost-effective consulting
- fresh input of new ideas

Format of the MPI Workshop

The MPI Workshop is a lively, 5-day interaction on problems of interest to science and industry. On the first day, the industry representatives, present their problems to the whole group. These problems vary widely in nature from those requiring basic physical modeling to those requiring significant computation (a partial list of problems brought to previous workshops is included overleaf). For the rest of the week, the workshop participants break up into small working groups consisting of senior faculty and attending scientists, graduate students, and the industrial representatives, to discuss and tackle the problems in an informal setting. On the last day of the workshop, an academic representative from each group presents the results obtained and discusses possible future directions. A written report detailing the progress made during the workshop is prepared subsequently and sent to the industry representatives.

The format of the workshop is not strict and some variation is possible. For example, while representatives from industry are strongly encouraged to stay and participate during the full week, a partial-week participation can be arranged. The MPI 2001 Organizing Committee is committed to working with representatives from industry to meet their needs and we are especially interested in encouraging new contacts with industry while maintaining existing ones.

MPI 2001 Location

All workshop meetings will take place in the Darrin Communications Center on the campus of Rensselaer Polytechnic Institute.

Registration Fees

There is a $75 registration fee for all participants attending the workshop. (The registration fee is waived for students.)

There is a $1500 problem submission fee for each industry bringing a problem to the workshop. This fee is reduced to $1250 for a first-time industry problem submission. The problem submission fee covers all work done on the problem during the workshop and the subsequent written report.

Industry representatives who are interested in submitting a problem to the workshop should first contact a member of the MPI 2001 Organizing Committee to discuss the suitability of the problem. The best results are achieved when the proposed problem is discussed and refined prior to the workshop.

General Information

Lunches will be provided Monday through Thursday during the week of the workshop. A workshop dinner will be held at a local restaurant on Monday evening, June 4.

Lodging is available on campus or at local hotels. Arrangements for on-campus lodging can be made online at the MPI 2001 web site or by contacting our Workshop Coordinator, Melissa Reardon at (518) 276-6382, email: reardm@rpi.edu. Arrangements for local hotels can be made by contacting a hotel directly. A list of hotels in the area may be found on the MPI 2001 web site.

To participate in the workshop, complete and mail the Application Form overleaf.