

ASPE 2010 SPRING TOPICAL MEETING

FIRST CALL FOR PAPERS

Control of Precision Systems

Sunday through Tuesday, April 18 to 20, 2010

We are pleased to announce the availability of the CALL FOR PAPERS for the 2010 Spring Topical Meeting.

The conference will be held on the Campus of the Massachusetts Institute of Technology in Cambridge, Massachusetts.

Meeting Co-chairmen:

David L. Trumper, Massachusetts Institute of Technology

Jeffrey W. Roblee, AMETEK - Precitech, Inc.

Stephen J. Ludwick, Aerotech, Inc.

Jan van Eijk, Delft University of Technology -- Mice BV

The 3rd Meeting on the Control of Precision Systems will focus on new developments in feedback control as applied to precision systems. We also encourage presentations of a tutorial nature which elaborate principles essential to achieving high performance in precision control systems.

The control of precision systems encompasses a wide range of applications in high-speed, high-accuracy manufacturing and automation. The growth of nanotechnology and nanoscale manufacturing has further raised the positioning requirements for machine designers. The performance of such systems, instruments, devices, and processes depends intimately upon the innovative application of feedback principles due to the large dynamic range of controlled variables and the sensitivity to effects which might be ignorable in conventional systems.

This conference is intended to promote a broader understanding of the principles and techniques applicable for precision control, to highlight the challenges and achievements unique to our field, to bring together specialists and practitioners from industry, government, and academia for the exchange of ideas, and to identify topics for further research. The conference schedule will include significant unstructured time to allow for technical and social interactions.

Contributed papers are invited in, but not limited to, the following topics:

- Precision control of mechatronic systems
- System design and dynamic error budgeting
- Advances in sensors, actuators, processors, and positioning systems
- Multi-axis modeling and uncertainty analyses
- Friction modeling, estimation, and control
- Command generation and feedforward design
- Case studies in precision mechatronic systems
 - Semiconductor processing
 - High-speed, high-accuracy machine tools
 - Medical device manufacture and test
 - Inertially-stabilized optical tracking systems
 - High-throughput electronics manufacturing
 - Data storage systems
 - Active isolation systems
 - Nanoscale manufacturing

Key Dates:

January 29, 2010

Deadline for submission of 400-500 word abstract.

February 9, 2010

Notification of results of the selection committee to all authors submitting abstracts.

March 15, 2010

Deadline for submission of an extended 4-6 page abstract to be included in the conference PROCEEDINGS.

Program Outline:

Sunday, April 18th

Tutorial: "Fundamentals of Precision System Control"

This full-day tutorial will present an overview of the control of precision systems, from the viewpoint of practical applications of control principles.

Instructors:

David L. Trumper, Stephen Ludwick, Jan van Eijk

Monday, April 19th

Technical Sessions, Lab Tours & Networking Dinner

Tuesday, April 20th

Technical Sessions

For .pdf copy of the call for papers go to:

http://www.aspe.net/meetings/2010_Spring/Spring2010CFP.pdf

For additional information please contact:

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www.aspe.net

ASPE Summer Topical Meeting
**Precision Interferometric
Metrology**

June 23-25, 2010
The Crowne Plaza Resort
Asheville, NC

ASPE 2010 Annual Meeting

Sunday - Friday
October 31 to November 5, 2010
Omni Hotel at CNN Center
Atlanta, Georgia