

2-DAY WORKSHOP ON FUNDAMENTAL ISSUES AND FUTURE RESEARCH DIRECTIONS FOR PARALLEL MECHANISMS AND MANIPULATORS

Québec City, Québec, October 3-4, 2002
(Immediately after the ASME DETC conferences in Montréal)

ABOUT THE WORKSHOP

This workshop seeks to bring together experts in the area of parallel manipulators from around the globe for two days in order to disseminate recent research progress and to identify the most promising future research directions for parallel manipulators. This meeting is not a routine conference, wherein the primary responsibility of the participant is to present his or her paper. Instead, through a series of *focused keynote presentations, round-tables, focused paper sessions, focused poster sessions and in-depth discussion sessions* we seek convergence on key issues related to parallel manipulators.

WORKSHOP OBJECTIVES:

1. Develop awareness of the current state-of-the-art of research in all areas of parallel manipulators and wire-driven manipulators, including kinematics, dynamics, controls, design and novel applications;
2. Identify roadblocks that must be resolved to increase the industrial use of parallel manipulators;
3. Identify open problems in the theoretical framework;
4. Identify promising approaches that may yield significant advances in the theoretical framework;
5. Establish and reinforce international collaboration and collaboration between academia and industry;
6. Discuss educational needs and methods;
7. Develop a strategy for the research community as a whole to accelerate the development and use of parallel manipulators.

CONFIRMED KEYNOTE SPEAKERS:

- **Jean-Pierre Merlet** (INRIA, Sophia-Antipolis, France)
- **Jorge Angeles** (McGill University, Montréal, Canada)
- **Torgny Brogårdh** (ABB Robotics, Västerås, Sweden)

CONFIRMED INDUSTRY PANELISTS:

- **Torgny Brogårdh**– ABB Robotics, Sweden
- **Ed Dougherty** – August Design Inc., US
- **Adam Jacoff** – NIST, US
- **Gerhard Serapins** – CAE, Montreal, Canada
- (more to come)

ABOUT THE LOCATION

The workshop will take place in Québec City, about three hours from Montréal by car. Bus transportation will be provided from and to Montréal for participants of the DETC conferences.

The well preserved historic area of Québec City is quite unique in North America. UNESCO cites the City of Québec as one of the best examples of a fortified colonial city. It was designated a World Heritage Site by UNESCO in 1985.



CALL FOR PAPERS

PAPERS ARE INVITED IN THE FOLLOWING CATEGORIES:

1. Papers discussing new hypotheses, ideas or concepts for new research directions. Detailed research results must not necessarily be included in the paper, as research in its initial stages is welcome. However, the potential of the idea/concept must be clearly documented by a logical explanation.
2. Papers describing a research need or open research problem. In particular, contributions from industry outlining practical issues that need to be resolved are highly encouraged.
3. Papers reviewing, interpreting and/or criticizing major recent developments in the area of parallel mechanisms and manipulators.
4. Education: Papers presenting innovative methods to educate students and/or to broadly disseminate knowledge about critical issues of parallel mechanisms and manipulators to the general public.
5. Any other papers matching the spirit of the workshop. (Papers discussing incremental improvements of commonly known methods are not appropriate for the workshop and are discouraged.)

SUBMISSION INSTRUCTIONS: Manuscripts are submitted electronically as pdf-file. Detailed instructions are available on the conference web page.

SHORT PAPER + POSTER: Submissions are also strongly encouraged for short papers (up to 4 pages) that sketch out a new idea or method, but in less depth than a regular paper. Accepted short papers will be included in the workshop proceedings. Authors of accepted short papers will be invited to present their idea in a poster session at the conference. We anticipate that the poster sessions will contribute many new ideas and viewpoints to the workshop, stimulate discussion and thus be a crucial component of the workshop.

SCHEDULE FOR PAPER SUBMISSION (REGULAR AND SHORT PAPERS):

February 25, 2002: Deadline for Regular and Short Papers
April 29, 2002: Authors notified of acceptance
May 27, 2002: Deadline for submission of final manuscripts

WORKSHOP CHAIRS:

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CONFERENCE WEBSITE: <http://robot.me.gatech.edu/WORKSHOP/workshop.html>