

400 Lind Hall, 207 Church St. SE Minneapolis, MN 55455

> Email: staff@ima.umn.edu URL: www.ima.umn.edu

+1612624-6066

Fax 612 626-7370

Dr. Henry Wolkowicz University of Waterloo Department of Combinatorics and Optimization 200 University Avenue West Waterloo, ON N2L 3G1 CANADA

January 29<sup>th</sup>, 2006

Dear Dr. Wolkowicz,

It is my pleasure to invite you to participate in a workshop on Optimization and Control which will run from January 15-19, 2007. The workshop is being organized by Dimitris Bertsimas (MIT), J. William Helton (San Diego), Jean Bernard Lasserre (LAAS-CNRS), and Mihai Putinar (Santa Barbara) as part of the 2006-2007 thematic year on Applications of Algebraic Geometry at the Institute for Mathematics and its Applications (IMA). This workshop is being organized to facilitate progress at the interface of algebraic geometry and applications, reaching from integer programming and general polynomial optimization, over differential inequalities appearing in dynamical systems and control theory, to enumeration problems, equilibrium problems in game theory, options pricing in financial economics, and robust optimization. The workshop will bring together people who develop theorems in algebraic geometry and the researchers who use them.

If you accept this invitation, the IMA will pay your living expenses during the workshop and the market value of the lowest cost round-trip airfare at the time of your visit. (This usually requires a 7-30 day advance booking and a Saturday night stayover--in which case the IMA will pay the additional night in a hotel.) For international travel we limit payment to \$1,000. The IMA can only reimburse flights on a U.S.-flag air carrier. Please see www.ima.umn.edu/visitor-folder/reimburse.html for our reimbursement policies and details on the U.S.-flag carrier restriction.

There are also possibilities for spending a longer period of time at the IMA. If you are interested, please get back to me and we can discuss this.

The IMA is located on the Minneapolis campus of the University of Minnesota. Since its founding in 1982 as the result of a national competition, the IMA (www.ima.umn.edu) has been a major national institute with the mission of fostering research of a true interdisciplinary nature and establishing links between mathematics of the highest caliber and important scientific and

PARTICIPATING INSTITUTIONS: Air Force Research Laboratory, Carnegie Mellon University, Consiglio Nazionale delle Ricerche, Georgia Institute of Technology, Indiana University, Iowa State University, Kent State University, Lawrence Livermore National Laboratory, Los Alamos National Laboratory, Michigan State University, Michigan Technological University, Mississippi State University, Northern Illinois University, Ohio State University, Pennsylvania State University, Purdue University, Rice University, Rutgers University, Sandia National Laboratory, Seoul National University, Texas A&M University, University of Chicago, University of Cincinnati, University of Delaware, University of Houston, University of Illinois (Urbana), University of Iowa, University of Kentucky, University of Maryland, University of Michigan, University of Minnesota, University of Notre Dame, University of Pittsburgh, University of Texas, University of Wisconsin, University of Wyoming, Wayne State University, Worcester Polytechnic Institute.

technological problems from other disciplines and industry. The IMA receives most of its funding from the National Science Foundation.

IMA workshops normally involve a very limited number of talks because discussion, interaction, and making new connections are emphasized. Because of this emphasis, we strongly encourage participation in a workshop from beginning to end. We are not asking you to present a talk at this time, but we encourage you to make a presentation in the poster session.

I very much hope that you will accept this invitation. Please let us know as soon as you can, and by February 20 at the latest, by sending email to visit@ima.umn.edu. Our workshop staff can also handle logistical questions and problems through the same address.

Sincerely yours,

Douglas N. Arnold

Professor and Director, IMA

400 Lind Hall, 207 Church Street S.E.

University of Minnesota

Minneapolis, MN 55455

Douglas M amold