
Conferences

2003 Von Neumann Conference

Symposium on Complex Geometry, Calibrations, and Special Holonomy

**Mathematical Sciences Research Institute
Berkeley, California
August 11–22, 2003**

With the support of an AMS fund established by Dr. and Mrs. Carroll V. Newsom in honor of the memory of John von Neumann, and with the support of the Mathematical Sciences Research Institute, a symposium on Complex Geometry, Calibrations, and Special Holonomy will take place from Monday, August 11, to Friday, August 22, 2003, at the Mathematical Sciences Research Institute, Berkeley, California.

The topic was selected by the AMS von Neumann Symposium Committee, whose members at the time were Mitchell Luskin and Toby Stafford.

Organizing Committee

Robert Bryant, Duke University (Cochair)
Simon Donaldson, Imperial College
H. Blaine Lawson, SUNY at Stony Brook
Richard Schoen, Stanford University
Gang Tian, Massachusetts Institute of Technology (Cochair)

Symposium Overview

The ideas and tools being developed in differential geometry in response to the challenges posed in modern mathematical physics, particularly string theory, will be the focus of the von Neumann symposium to be held at the Mathematical Sciences Research Institute August 11–22, 2003. The program will concentrate on current mathematical developments in complex geometry, calibrations and calibrated cycles, special holonomy, and gauge theory. The symposium has three intended audiences: researchers from related fields interested in an overview of this area, postdoctoral mathematicians and advanced graduate students in this area who wish to gain a broader perspective on the relationships between these topics and their applications to other areas, and senior researchers in the area who wish to broaden their perspective by hearing more about the full scope of the subject.

The program will be organized around four minicourses, one on each of the focus topics of the symposium, each

divided into a presentation of background material covered at the level of detail of a survey and more advanced material with an emphasis on applications to other areas. Though the four topics are interrelated, each minicourse will be independent enough of the others to stand on its own as an introduction to the subject. These minicourses will be designed so that a student with a two-semester course in differential geometry at the graduate level will be able to follow the lectures.

The minicourses will be supplemented by research talks for specialists as well as expository presentations intended to be accessible to postdocs and more senior researchers in related fields. Very few of the talks are expected to attract the entire body of participants, so there will be ample time for small group discussions. Further details about the content of the symposium will appear on the MSRI website (<http://www.msri.org/>) and the AMS website (<http://www.ams.org/meetings/>).

The participation of qualified women, underrepresented minorities, and junior scientists (advanced graduate students and recent Ph.D.'s) is especially encouraged. All persons who are interested in participating should submit the following information to AMS Symposium Coordinator, American Mathematical Society, P.O. Box 6887, Providence, RI 02940; or by email to wsd@ams.org **no later than March 1, 2003**.

Please type or print the following:

1. Full name and mailing address.
2. Phone numbers (including area code) for office, home, and fax.
3. Email address.
4. Your anticipated arrival/departure dates.
5. Scientific background relevant to the symposium topics; please indicate if you are a student or if you received your Ph.D. on or after 7/1/96.
6. The amount of financial assistance requested (or indicate if no support is required).

All requests will be forwarded to the organizing committee for consideration. Letters of invitation with specific offers of support (if applicable) will be mailed in early April, along with a brochure of information, program information known to date, and information on travel and local housing. Participants will be responsible for making their own travel and housing arrangements.

Questions concerning the scientific program should be addressed to the organizers at bryant@math.duke.edu or tian@math.mit.edu. Questions of a nonscientific nature should be directed to the AMS Symposium Coordinator at the address provided above.