

Pro Forma CHARTER RENEWAL APPLICATION
SIAM Activity Group on Life Sciences

This CHARTER RENEWAL APPLICATION applies to the SIAM Activity Group on Life Sciences. The SIAM Activity Group (or SIAG) to which this renewal applies was originally formed under the aegis of SIAM by the SIAM Council and Board of Trustees by electronic mail in Fall 1999 with its initial operating period beginning January 1, 2000, and ending December 31, 2002. The SIAM Council and Board of Trustees are requested to approve the first renewal of the charter. This SIAG has 410 members as of June 30, 2001.

According to its Rules of Procedure, the objective of the SIAG is to foster

- o application of mathematics to the life sciences
- o research in mathematics that leads to new methods and techniques useful in the life sciences.

The life sciences have become quantitative as new technologies facilitate collection and analysis of vast amounts of data ranging from complete genomic sequences of organisms to satellite imagery of forest landscapes on continental scales. Computers enable the study of complex models of biological processes. The SIAG will bring together researchers who seek to develop and apply mathematical and computational methods in all areas of the life sciences. It will provide a forum that cuts across disciplines to catalyze mathematical research relevant to the life sciences and rapid diffusion of advances in mathematical and computational methods.

Its purposed function was to organize activities, including conferences at various times and locations, sessions and minisymposia at SIAM meetings, workshops and educational forums to

- o promote interaction among mathematicians, life scientists, computational biologists, bioengineers and others interested in mathematical and computational analysis of biological systems,
- o keep the SIAM membership informed about problems in the life sciences that seem amenable to mathematical study,
- o facilitate further development of mathematical methods, software and applications of mathematics to the life sciences.

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The SIAG has complemented SIAM's activities and supported its proposed functions. The answers to the questions below indicate how this was accomplished and what the officers propose as the future directions for the SIAG.

1. How is the field covered by the activity group doing? Is it growing, is the focus shifting? What have been the significant advances over the last three years?

The field covered by this activity group is flourishing. Applied math along with other disciplines is jumping on the life sciences "bandwagon." Over 400 SIAM members have joined the Activity Group before any activities have been held.

2. How is the activity group doing? Is it remaining vibrant? Is it keeping up with the changes in the field? What is the role of mathematics, industry, and interdisciplinary activity?

The Activity Group is waiting for the first election of officers before launching activities beyond the first conference, which was postponed following the destruction of the World Trade Center on September 11. Our reasoning is that the activities and direction of the Activity Group should be determined by elected officers.

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3. Please list conferences/workshops the activity group has sponsored or co-sponsored over the past three years, and give a brief (one sentence or phrase) indication of the success or problems with each.

The Activity Group conference has been postponed to March, 2002.

4. Please indicate the number of minisymposia directly organized by the activity group at the last two annual meetings.

I don't have data on minisymposia at the annual meeting.

Note: The SIAG/LS sponsored a three-session minisymposium entitled "Mathematical Problems in Epidemiological Modeling" at the SIAM Annual Meeting 2000. (JML, SIAM office)

5. Please indicate other activities sponsored by the activity group, to include newsletters, prizes and web sites. Have each of these been active and successful?

See response to question 2.

6. What activities are planned and proposed for the next period of the charter? Please describe scheduled and suggested future activities in detail.

See response to question 2.

7. How can SIAM help the activity group achieve its goals?

Premature.

8. How can the activity group help SIAM in its general role of promoting applied mathematics and computational science?

The Activity Group can be helpful by building bridges between applied math and the life sciences. Concrete activities will await elected officers.

This SIAG requests that the SIAM Council and Board of Trustees renew its charter for a three-year operating period beginning January 1, 2003.

Signed
John Guckenheimer
SIAG/LS Chair
September 27, 2001
