*Mark Your Calendar*

Joint Mathematics Meetings

San Diego

January 6–9, 2008

*See You There!*

# AMS SHORT COURSE

## Applications of Knot Theory

**January 4-5, 2008**
**San Diego, California**

Organizers:

Dorothy Buck
Department of Mathematics
and Centre for Bioinformatics
Imperial College London

Erica Flapan
Department of Mathematics
Pomona College

Over the past twenty years, knot theory has rekindled its historic ties with biology, chemistry, and physics. While the original motivation for understanding and classifying knots came from chemistry, knot theory remained a primarily pure field of mathematics until the 1980s, when chemists, biologists, and physicists began searching for more sophisticated descriptions of entanglements of natural phenomena—from strings to small organic compounds to DNA.

This AMS Short Course will introduce knot theory, and some of its recent applications in molecular biology, chemistry, and physics. No prior knowledge of knot theory, biology, chemistry, or physics is assumed— there will be introductory talks on the first day. Speakers will survey their own work in these areas, as well as describing new avenues for interested researchers (and their students) to explore.

The Short Course will conclude with a panel discussion of the putative trajectories of these applications of knot theory, and summarize the major open problems and challenges. References will be available in advance and lecture notes published afterwards.

List of speakers:

Colin Adams (Williams College)
Dorothy Buck (Imperial College London)
Erica Flapan (Pomona College)
Lou Kauffman (University of Illinois at Chicago)
Ned Seeman (New York University)
Jon Simon (University of Iowa)

**Advance registration fees:**

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|---|---|
| member/nonmember | $90/120 |
| Student/unemployed/emeritus | $40 |

**On-site registration fees:**

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|---|---|
| member/nonmember | $120/151 |
| student/unemployed/emeritus | $60 |