Tuesday, January 10

AMS Short Course on Modeling and Simulation of Biological Networks, I

8:00 AM - 5:00 PM
Organizer: Reinhard Laubenbacher, Virginia Bioinformatics Institute

8:00 AM Registration.
9:00 AM Introduction to the Short Course topics.
   (1) Reinhard Laubenbacher, Virginia Polytechnic Inst & State Univ
9:30 AM Reconstructing ancestral genomes.
   (2) Lior Pachter, University of California Berkeley
10:45 AM Break.
11:15 AM Phylogenetics.
   (3) Elizabeth Allman, University of Southern Maine
2:00 PM Modeling and simulation of biochemical networks.
   (4) Pedro Mendes, Virginia Bioinformatics Institute
3:15 PM Break.
3:30 PM Panel Discussion: The new face of computational biology.

MAA Short Course: Experimental Mathematics in Action, I

9:00 AM - 5:00 PM
Organizer: Jonathan M. Borwein, Dalhousie University

8:00 AM Registration.
9:00 AM What is experimental mathematics?
   (5) Jonathan M. Borwein, Dalhousie University
10:15 AM Break.
10:45 AM Case Study I: Integrals and series using Mathematica.
   (6) Victor H. Moll, Tulane University
2:00 PM Algorithms for experimental mathematics, I.
   (7) David H. Bailey, Lawrence Berkeley National Laboratory
3:15 PM Break.
3:45 PM Case Study II: Discrete math and number theory in Maple and C++.
   (8) Neil J. Calkin, Clemson University

Wednesday, January 11

MAA Board of Governors

8:00 AM - 5:00 PM

AMS Short Course on Modeling and Simulation of Biological Networks, II

9:00 AM - 5:00 PM
Organizer: Reinhard Laubenbacher, Virginia Bioinformatics Institute

9:00 AM A computational algebra approach to systems biology.
   (9) Brandilyn Stigler, Virginia Polytechnic Institute & State Univ
10:15 AM Break.
10:45 AM Interaction-based computing approach to modeling and simulations of large biological and socio-technical systems.
   (10) Madhav Marathe, Virginia Bioinformatics Institute
2:00 PM Optimal control of population and disease models.
   (11) Suzanne M. Lenhart, University of Tennessee
3:15 PM Break.
3:30 PM Panel Discussion: Opportunities in computational biology.

MAA Short Course: Experimental Mathematics in Action, II

9:00 AM - 5:00 PM
Organizer: Jonathan M. Borwein, Dalhousie University

9:00 AM Case Study III: Inverse scattering on Matlab.
   (12) D. Russell Luke, University of Delaware
10:15 AM Break.
10:45 AM Case Study IV: Analysis and probability on the computer.
   (13) Roland Girgensohn, Bundeswehr Medical Office
2:00 PM Algorithms for experimental mathematics, II.
   (14) David H. Bailey, Lawrence Berkeley National Laboratory
3:15 PM Break.
3:45 PM Concluding examples. Putting everything together.
   (15) Jonathan M. Borwein, Dalhousie University