

APPENDIX 2: WORKSHOP AGENDA

Tuesday, September 11, 2001

Time	Speaker	Title/Subject
8:30 a.m.	Joe Dehmer and Bill McCurdy	Welcome and Opening Remarks
9:00	Rob Phillips, California Institute of Technology	“Confronting the Challenge of Multiple Scales in Space and Time: From Macromolecules to Plastically Deformed Solids”
9:45	Juri Toomre, University of Colorado	“Coupling of Turbulent Convection, Rotation and Magnetism in Stars”
10:30	Break	
10:45	Richard Mount, Stanford Linear Accelerator Laboratory	“Experimental High-Energy and Nuclear Physics: The Scientific Challenge of Data-Intensive Science”
11:15	Mike Norman, University of California, San Diego	“Computing the Formation, Evolution, and Fate of our Hierarchical Universe”
11:45	Klaus Schulten, University of Illinois	“Concepts and Methods in Computational Bioelectronics”
12:15 p.m.	Lunch	
1:30	Robert Wyatt, University of Texas	“Molecular Physics/Chemical Dynamics”
2:00	Joan Centrella, NASA/Goddard Space Flight Center	“Computing Astrophysical Sources of Gravitational Radiation”
2:30	Panel	“Identifying the Principal Challenges and Opportunities in Computational Physics” Panelists B. Sugar, C. Clark, R. Roskies, C. Rebbi, R. Hilderbrandt, J. Dehmer, S. Koonin
3:30	Break	
4:00	Gulia Galli, Lawrence Livermore National Laboratory	“First-Principles Molecular Dynamics Simulations: Successes and Open Problems”
4:30	William Tang, Princeton Plasma Physics Laboratory	“Challenges in Computational Plasma Science”
5:15	Adjourn	

Wednesday, September 12, 2001

Time	Speaker	Title/Subject
8:30 a.m.	Claudio Rebbi, Boston University	“Large Scale Calculations for Theoretical Particle Physics” <i>(AG)</i>
9:00	Phil Colella, Lawrence Berkeley National Laboratory	“Computational Mathematics for Computational Science: Successes, Opportunities and Challenges”
9:30	Mathew Maltrud, Los Alamos National Laboratory	“High Resolution Ocean Modeling”
10:15	Break	
10:30	Robert Harrison, Pacific Northwest National Laboratory	“Challenges in Accurate Molecular Modeling”
11:00	Rob Ryne, Lawrence Berkeley National Laboratory	“Applications of High Performance Computing to Particle Accelerator Design”
11:30	TBA	Computer Science
12:15 p.m.	Lunch	
1:30	Steve Koonin, California Institute of Technology	“Challenges in computational nuclear (and other) science” <i>(AG)</i>
2:00	Vincent McKoy, California Institute of Technology	Electron and Photon-Molecule Collisions
2:30	Panel:	“Education, Training and Linkages to Other Disciplines” Panelists: J. Wilkins, L. Collins, D. Reed, G. McCrae, W. Ermler, P. Colella
3:30	Break	
4:00	Gerhard Hummer, National Institutes of Health	“Water Conduction: From Carbon Nanotubes to Proteins”
4:30	Closing Discussion of Topics to Be Included in Workshop Report	
5:30	Workshop Adjourns	