

Third Joint Conference on Computational Mathematics (JCCM3)

January 23-27, 1995

Hilltop House Hotel

Los Alamos, NM

Sunday, January 22, 1995

6:00 - 8:00 p.m. Registration Reception
Hilltop House Hotel/Trinity Sights Restaurant

Monday, January 23, 1995

8:00 - 8:30 a.m. Registration (Hilltop House Hotel/Acoma Room)

8:30 - 8:45 **Welcome** (Hilltop House Hotel/Taos - Tyuoni)
H. A. Dayem, LANL
Director, Computing, Information and Communications Division

Session 1 - High Performance Computing

Session Chair: M. P. Sohn, LANL

Program Manager for Computational Physics

- 8:45 - 9:30 **Parallelization of Evolutionary Problems in Computational Physics**
I. D. Sofronov and O. I. Sofronova, VNIIEF
- 9:30 - 10:15 **High Performance Computing at the Advanced Computing Laboratory**
D. W. Forslund, LANL
- 10:15 - 10:45 Break and Group Photo
- 10:45 - 11:30 **Massively Parallel Computing at Sandia National Laboratories**
E. Barsis and S. S. Dosanjh, SNL
- 11:30 - 12:15 p.m. **3D Evolution of Rayleigh-Taylor and Richtmeyer-Meshkov Instabilities in Converging Geometries Using Adaptive Mesh Refinement (AMR)**
R. I. Klein, LLNL
- 12:15 - 1:15 Lunch, Loft

Session 2 - Continuum Mechanics/Hydrodynamics**Session Chair:**

- 1:15 - 2:00 **Problem of Conservatism in Numerical Methods of Continuum Mechanics**
V. F. Kuropatenko, VNIITF
- 2:00 - 2:45 **Parallel Solid Dynamics Codes**
J. M. McGlaun, SNL
- 2:45 - 3:00 Break
- 3:00 - 3:45 **Technique and Set of Program GRAD for Solution of Nonstationary Problems of Continuum Mechanics**
V. A. Suchkov and A. S. Shnitko, VNIITF
- 3:45 - 4:30 **Scalable, Compatible, Energy and Entropy Conserving Hydrodynamics**
E. J. Caramana and P. P. Whalen, LANL
- 5:30 - 6:45 Reception, Bradbury Science Museum

Tuesday, January 24, 1995**Session 3 - Transport Methods****Session Chair:**

- 8:30 - 9:15 a.m. **VNIIEF Techniques and Programs for Solving 2D and 3D Nonstationary Problems of Radiant Energy Transfer in Complex-Shaped Regions Using View Factors--Conversion Application Problems**
Yu. N. Babayev, S. V. Bazhenov, A. A. Bazin, E. G. Vasina, V. V. Gorev, Yu. A. Dementyev, V. G. Zagrafov, E. A. Karpovtsev, A. I. Kirillov, V. F. Mironova, P. I. Pevnaya, P. A. Perepelkin, G. I. Skidan, I. D. Sofronov, B. P. Tikhomirov, E. N. Tikhomirova, and N. I. Yurina, VNIIEF
- 9:15 - 10:00 **Unconditionally Stable Explicit Algorithms for Diffusion**
F. Graziani, LLNL
- 10:00 - 10:15 Break