

## *Presentations by L.M. Liebrock*

1. “Speedup Factors for Parallel Algorithms for Computational Continuum Dynamics”, Invited lecture presented to the Applied Mathematics Symposium, Sandia National Laboratories, Albuquerque, NM, 26 February 1985. By: D. L. Hicks, L. M. Liebrock\*, and J. F. McGrath<sup>1</sup>.
2. “Parallel Processing for Computational Continuum Dynamics”, Presented at the Workshop on Parallel Processing using the Heterogeneous Element Processor, University of Oklahoma, Norman, OK, 20-21 March 1985. By: J. F. McGrath\*, D. L. Hicks, and L. M. Liebrock
3. “Concurrent Computational Continuum Dynamics on the CRAY XMP4, ELXSI and HEP Computers”, Invited lecture presented to the Applied Mathematics Colloquium at Sandia National Laboratories, Albuquerque, NM, 23 July 1985. By: D. L. Hicks, and L. M. Liebrock\*
4. “Parallel Algorithms for Computational Continuum Dynamics”, Invited presentation to the MTU Workshop on Applications of Supercomputers, Houghton, MI, 5-9 August 1985; By: J. F. McGrath\*, D. L. Hicks and L. M. Liebrock
5. “Concurrent Computational Continuum Dynamics Compared on Three Different Architectures”, Invited lecture presented to the Advanced Methods Colloquium at Idaho National Engineering and Environmental Laboratories, Idaho Falls, ID, 21 August 1985. By: D. L. Hicks and L. M. Liebrock\*
6. “CRAY XMP/4, ELXSI/10 and HEP Parallel Processors Compared on Concurrent Computational Continuum Dynamics”, Invited lecture presented to the KMS Fusion Colloquium on Scientific Computing, KMS Fusion, Inc., Ann Arbor, MI, 4 Sept. 1985. By: L. M. Liebrock\* and D. L. Hicks
7. “Concurrent Algorithms for Hydrocodes Compared on the CRAY XMP/4, ELXSI/10 and HEP Parallel Processors”, Invited lecture presented to Lawrence Livermore National Laboratories Computation Department's, Colloquium, Livermore, CA, 11 Nov. 1985. By: D. L. Hicks\* and L. M. Liebrock
8. “Thermal-Hydraulics Algorithms for Parallel Processors”, Invited lecture presented to the American Nuclear Society, San Francisco, CA, 10-14 November 1985. By: D. L. Hicks\*, L. M. Liebrock, and J. F. McGrath
9. “Free-Electron-Laser Simulations on the MPP”, Presented at the Frontiers of Massively Parallel Scientific Computation Symposium, NASA Goddard Space Flight Center, Greenbelt, MD, 24-25 Sept., 1986. By: Scott A. Von Laven\* and Lorie M. Liebrock
10. “Parallelization of Hydrocodes on the Intel iPSC Hypercube” invited presentation to the Scientific Programming and Advanced Graphics Group at E.G.&G. Idaho, Inc., 16 July 1987 and in the E.G.&G. Science Seminar Series at Idaho National Engineering and Environmental Laboratories in Idaho Falls, ID, 31 July 1987. By: D. L. Hicks, L. M. Liebrock\*, G. A. Mortensen, and V. A. Mousseau
11. “Hydrocodes on the Hypercube”, Invited lecture presented to the Annual Winter Meeting of the American Nuclear Society, Los Angeles, CA, 17 Nov. 1987. By: D. L. Hicks\* and L. M. Liebrock

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<sup>1</sup> If there are coauthors on a presentation, the \* marks who spoke.

12. "Advanced Architectures and Methods for Computational Material Dynamics" Invited lecture presented at the Idaho Research Center of the Idaho National Engineering and Environmental Laboratories on 1 March 1988 in Idaho Falls. By: D. L. Hicks\* and L. M. Liebrock
13. "Models for Computation in Advanced Architectures: Hyperspheres, Cellular Automata, & Neural Networks", Invited lecture presented at the Lake Superior Regional Meeting of the Michigan Section of the Mathematical Association of America in Marquette, MI, 15 & 16 April 1988. By: D. L. Hicks\* and L. M. Liebrock
14. "Neural Networks for Material Dynamics", Invited lecture presented to the KMS Fusion Colloquium in Ann Arbor, MI, 15 July 1988. By: D. L. Hicks\* and L. M. Liebrock
15. "Mathematical Models for Parallel Processor Performance", Presented to the Upper Peninsula Regional Meeting of the Michigan Section of the Mathematical Association of America in Houghton, 21, 22 October 1988. By: L. M. Liebrock\* and D. L. Hicks
16. "Material Dynamics, Mathematical Modelling and Numerical Analysis", Invited Lecture presented to the Mathematics Colloquium at Bowling Green State University, Bowling Green, Ohio, 24 February 1989. By: D. L. Hicks\* and L.M. Liebrock
17. "Hopfield Neural Nets: When are they an Efficacious Mode of Parallel Computation?", Invited lecture presented to the Parallel Computation Seminar of the NSF's Science and Technology Center for Research in Parallel Computation, Rice University, Houston, Texas, 5 December 1989. By: D. L. Hicks\* and L.M. Liebrock
18. "Algorithm Topologies and Portable Parallel Programs", Invited lecture presented to the Parallel Fortran Converter Group of the NSF's Science and Technology Center for Research in Parallel Computation, Rice University, Houston, Texas, 25 January 1990. By: J. Dongarra, D. L. Hicks, K. Kennedy, and L.M. Liebrock\*
19. "Using Problem and Algorithm Topology for Parallelization", presented to Birds-of-a-Feather session at Supercomputing 1991, Albuquerque, New Mexico, 19-21 November 1991. By: L.M. Liebrock
20. "Exploiting Problem and Algorithm Topology in Parallelization", Poster Session at Supercomputing 1991, Albuquerque, New Mexico, 19-21 November 1991. By: L.M. Liebrock\*, D.L. Hicks, K.W. Kennedy, and J.D. Dongarra
21. "Using Problem Topology for Automatic Parallelization", Presented to the XIth Parallel Circus, Minnesota Supercomputer Institute, Minneapolis, Minnesota, 24-25 April 1992. By: L.M. Liebrock
22. "Eigenform Error Estimates for Computational Material Dynamics with Shocks", Invited lecture presented to the Experimental Impact Physics Department at Sandia National Laboratories, Albuquerque, New Mexico, 17 Aug. 1992. By: D.L. Hicks\* and L.M. Liebrock
23. "Producing and Porting Parallel Algorithms for Material Dynamics", Presented to the Computational and Mathematical Modelling Session of the Fifth International Topical Meeting on Reactor Thermal Hydraulics, Salt Lake City, Utah, 21-24 September 1992. By: L.M. Liebrock\* and D.L. Hicks
24. "Topology Based Parallelization", Invited lecture presented to the Graduate Seminar in Parallel Programming Systems (COMP-615), Rice University, 25 October 1992. By: L.M. Liebrock
25. "Automatic Compile-Time Distribution of ICRM Problems in Fortran D", Invited presentation to the PARTI Research Group in the Computer Science Department, University of Maryland, May 1993. By: L.M. Liebrock

26. "Automating Parallelization of Composite Grid Problems", Presented to the Grids and Visualization for Modeling Permeable Media Meeting at Rice University, Houston, TX, 8 November 1993. By: L.M. Liebrock
27. "Composite Grid Application Requirements for High Performance Fortran", Presented at the High Performance Fortran Forum Meeting, Houston, TX, 14 Jan. 1994. By: L.M. Liebrock
28. "Parallelization of Linearized Applications in Fortran D", Presented at the International Parallel Processing Symposium, Cancun, Mexico, 27 April, 1994. By: L.M. Liebrock\* and Ken Kennedy.
29. "Using Problem Topology in Parallelization of Composite Grid Applications", part of the Irregular Distribution Poster Session, National Science Foundation Site Visit to the Center for Research in Parallel Computation, Rice University, 1 September, 1994. By: L.M. Liebrock
30. "Using Problem Topology in Parallelization", Ph.D. dissertation defense, Computer Science Department, Rice University, 28 September, 1994. By: L.M. Liebrock
31. "Code Development Directions for Parallelization", U.S. Nuclear Regulatory Commission, Advisory Group Meeting, 20 May, 1996. By: L.M. Liebrock
32. "Parallelization and Automatic Data Distribution for Composite Grid Applications", invited presentation, U.S. Nuclear Regulatory Commission, 22 May, 1996. By: L.M. Liebrock
33. "Parallelization and Automatic Data Distribution for Nuclear Reactor Simulations", Simulation Poster Session, SIAM Conference on Parallel Processing, 14 March, 1997. By: L.M. Liebrock
34. "Automatic Data Distribution and Parallelization Framework", U.S. Nuclear Regulatory Commission, 9 February, 1999. By: L.M. Liebrock
35. "Automatic Data Distribution for Nuclear Reactor Simulation", U.S. Nuclear Regulatory Commission, 10 February, 1999. By: L.M. Liebrock
36. "Mapping Nuclear Reactor Simulations onto Homogeneous and Heterogeneous Systems", Mathematics and Computation '99, Madrid, Spain, 28 Sept. 1999. By: L.M. Liebrock
37. "Mapping Composite Grid Applications onto Parallel Computers", Colloquium for Department of Mathematical Sciences, University of Alaska Fairbanks, Fairbanks, Alaska, 31 May 2000. By: L.M. Liebrock
38. "Using Exact Solution Test Problems for Systems Validation, Algorithm Testing, and Performance Tuning", Application Development and Tuning Workshop, Arctic Region Supercomputing Center, Fairbanks, Alaska, 6 Sept. 2001. By: L.M. Liebrock
39. "Composite Grid Data Distribution", Colloquium for Department of Computer Science, New Mexico State University, Las Cruces, New Mexico, 5 November 2001. By: L.M. Liebrock
40. "Composite Grid Data Distribution", Colloquium for Department of Computer Science, New Mexico Institute of Mining and Technology, Socorro, New Mexico, 27 November 2001. By: L.M. Liebrock
41. "Composite Grid Data Distribution", Colloquium for Department of Computer Science, University of Colorado, Colorado Springs, Colorado, 30 November 2001. By: L.M. Liebrock
42. "Composite Grid Data Distribution", Invited Colloquium for Department of Computer Science, University of Texas, El Paso, Texas, 7 December 2001. By: L.M. Liebrock
43. "Research in Computer Science and Information Technology", Presentation for National Cryptologic School, New Mexico Tech, 11 February 2003. By: L.M. Liebrock

44. "Gender, Science, and Engineering"-- Co-Lead a panel at New Mexico Women's Studies Conference at New Mexico Tech, 1 March 2003. By: L.M. Liebrock and Lisa Frehill
45. "Research and Opportunities in Computer Science", Computer Science Freshman Seminar, New Mexico Tech, 4 March 2003. By: L.M. Liebrock
46. "Computational Sensitivity Analysis", Graduate Seminar, Computer Science Department, New Mexico Tech, 26 March 2003. By: L.M. Liebrock
47. "SMG on SMP clusters: performance issues", Proceeding of Eleventh Copper Mountain Conference on Multigrid, at Copper Mountain, Colorado, 31 March 2003. By: Sue Goudy\*, Lorie Liebrock, and Steve Schaffer
48. "Automatic Data Distribution Toolkit for Galaxy Quest", National Center for Supercomputing Applications, All Hands Meeting, 1 May 2003. By: L.M. Liebrock
49. "Information Technology for Information Assurance", Center of Academic Excellence in Information Assurance Education, Presentation for National Cryptologic School, New Mexico Tech, 24 September 2003. By: L.M. Liebrock
50. "Information Assurance Education", Naval Postgraduate School, 20 November 2003, By: L.M. Liebrock