Scientific Lectures

Hans Peter Zima

Professor Emeritus, University of Vienna, Austria and
Principal Scientist (retired), Jet Propulsion Laboratory, California Institute of Technology

1. SESAM - Eine Programmiersprache für die ZUSE Z26
   ZUSE Users Meeting, Bad Hersfeld, Germany (1966)

2. A Programming Language for Real-Time Systems
   European Seminar on Real-Time Programming, Harwell, England (April 1971)

3. Programmiersprachen für Real-Time Systeme
   Computer Science Seminar, University of Karlsruhe, Germany (December 1971)

4. Highlights of a New Real-Time Language
   EUROCONTROL Seminar, Maastricht, Netherlands (December 1971)

5. PROGRESS- A Programming Language for Real-Time Systems
   Los Angeles SIGPLAN Chapter, Los Angeles (January 1973)

6. Storage Allocation in Real-Time Programming Languages
   Third European Seminar on Real-Time Programming, Ispra, Italy (May 1973)

7. Realzeitsprachen
   Computer Science Seminar, Technical University of Munich, Germany (January 1974)

8. Coordination of Asynchronous Tasks
   IFAC/IFIP Workshop on Real-Time Programming, Budapest, Hungary (March 1974)

9. Synchronisation von Prozessen
   Computer Science Seminar, University of Karlsruhe, Germany (May 1974)

10. Kooperation paralleler Prozesse
    Mathematical Sciences Seminar, University of Hanover, Germany (May 1974)

11. Eine Programmiersprache für Realzeitsysteme
    Computer Science Seminar, University of Bonn, Germany (June 1974)

12. Prozeßsysteme
    Computer Science Seminar, University of Stuttgart, Germany (November 1974)

13. Realzeitsprachen
    Computer Science Seminar, University of Karlsruhe, Germany (November 1974)

14. PROGRESS
    AFCET Conference:Langages evolues temps reel, Paris, France (November 1975)

15. Systems Programming Languages
    Computer Science Seminar, University of Porto Alegre, Brazil (August 1976)

16. Process Synchronization
    Computer Science Seminar, University of Porto Alegre, Brazil (August 1976)

17. Modelling Features of Process Systems
    Computer Science Seminar, University of Sao Paulo, Brazil (October 1976)

18. An Evaluation of the Real-Time Language PROGRESS
    EUROCONTROL Seminar on Real-Time Languages, Luxemburg (April 1977)

19. Synchronisation in Prozesssystemen
    Workshop, Austrian Computer Society, Vienna, Austria (January 1979)

20. Mächtigkeit von Synchronisationsoperatoren
    Computer Science Seminar, University of Graz, Austria (January 1979)

21. Kontrollstrukturen und Datenflußanalyse
    Computer Science Seminar, University of Graz, Austria (December 1980)

22. Kontrollstrukturen höherer Programmiersprachen
    Computer Science Seminar, Technical University of Vienna, Austria (December 1980)

23. Neuere Entwicklungen im Compilerbau
    Computer Science Seminar, University of Karlsruhe, Germany (October 1981)

24. A Constraint Language and its Interpreter
    IBM San Jose Research Seminar, San Jose, California (March 1984)

25. Kaliforniens Silicon Valley und die elektronische Revolution
    Dies Academicus, University of Bonn, Germany (May 1984)

26. Eine Constraint-Sprache und ihre Implementierung
    IBM Scientific Center Heidelberg, Germany (June 1984)

27. Optimierung sequentieller Programme
    Computer Science Seminar, University of Mannheim, Germany (April 1985)

28. Computer Science Education and Research in Germany
    Computer Science Seminar, University of La Paz, Bolivia (May 1985)

29. Constraint Languages
    Computer Science Seminar, University of Cochabamba, Bolivia (June 1985)

30. Optimization in Compilers
    Academy of Sciences, La Paz, Bolivia (June 1985)

31. Automatic Parallelization
    IBM San Jose Research Seminar, San Jose, California (July 1985)

32. Data Flow Analysis
    Computer Science Seminar, University of Seoul, South Corea (August 1985)

33. Constraint Languages
    Science Center, Tae Dok City, South Corea (August 1985)

34. Automatic Parallelization
    Computer Development Division ETRI Gumi, South Corea (August 1985)

35. Compiler Construction
    Research and Development Center Gold Star Seoul, South Corea (August 1985)

36. Interaktive Vektorisierung sequentieller Fortran-Programme
    Computer Science Colloquium, Lessach, Austria (September 1985)

37. Halbautomatische Parallelisierung sequentieller Programme
    Mathematical Sciences Seminar, University of Freiburg im Breisgau, Germany (May 1986)

38. Halbautomatische Parallelisierung sequentieller Programme
    Computer Science Seminar, University of Erlangen-Nürnberg, Germany (June 1986)

39. Das SUPRENUM-Projekt an der Universität Bonn
    Computer Science Seminar, University of Bonn, Germany (July 1986)

40. Semi-Automatic Parallelization of Fortran Programs
    Conference on Algorithms and Hardware for Parallel Processing CONPAR86, Aachen, Germany (September 1986)

41. The Design of a Parallelization System for SUPRENUM
    IBM Thomas J. Watson Research Laboratory, Yorktown Heights, New York (September 1986)

42. The Design of a Parallelization System for SUPRENUM
    High Performance Computing Seminar, Argonne National Laboratory, Argonne, Illinois (September 1986)

43. The Design of a Parallelization System for SUPRENUM
    Department of Computer Science Colloquium, Rice University, Houston, Texas (October 1986)

44. Parallelisierung von Programmen für einen Superrechner
    Computer Science Seminar, University of Vienna, Austria (October 1986)

45. MIMD-Parallelization for SUPRENUM
    International Conference on Supercomputing (ICS'87), Athens, Greece (June 1987)

46. SUPERB - The SUPRENUM Parallelizer
    ICIAM 87 - First International Conference on Industrial and Applied Mathematics, Paris, France (June 1987)

47. The SUPRENUM Project
    Department of Computer Science Colloquium, Purdue University, Lafayette, Indiana (October 1987)

48. The SUPRENUM Parallelization System
    Computing About Physical Objects Seminar, Purdue University, Lafayette, Indiana (October 1987)

49. The SUPRENUM Parallelization System
    Department of Computer Science Colloquium, University of Illinois at Urbana-Champaign (October 1987)

50. SUPRENUM: Architecture, Applications, and Programming Environment
    IBM Palo Alto Scientific Center Seminar, Palo Alto, California (October 1987)

51. The SUPRENUM Project
    Lawrence Livermore National Laboratory Seminar, Livermore, California (October 1987)

52. Advanced Tools and Techniques for Automatic Parallelization
    Parallel Computing in Scientific Applications, INRIA-SUPRENUM-GMD Workshop, INRIA Rocquencourt, France (November 1987)

53. Das SUPRENUM-System und seine Programmierumgebung
    Computer Science Seminar, Technical University of Aachen, Germany (December 1987)

54. Das SUPRENUM-System: Architektur, Software und Anwendungen
    Invited Lecture, 10.GI/ITG-Fachtagung Architektur und Betrieb von Rechensystemen, Paderborn, Germany (March 1988)

55. Transformations-Software im SUPRENUM-Projekt
    Bereichsseminar Scientific Computing, Konrad-Zuse-Zentrum für Informationstechnik, Berlin, Germany (April 1988)

56. Programmierumgebungen für parallele Rechensysteme
    Computer Science Seminar, University of Graz, Austria (May 1988)

57. SUPERB
    Rice-SUPRENUM Colloquium, Rice University, Houston, Texas (May 1988)

58. The Specification Language SUSPENSE
    Rice-SUPRENUM Colloquium, Rice University, Houston, Texas (May 1988)

59. An Advanced Programming Environment for a Supercomputer
    Second Int.Conf.on Vector and Parallel Computing, Tromso, Norway (June 1988)

60. High Level Languages for SUPRENUM
    Invited Lecture, Seminar on Parallel and Vector Processing IBM Europe Institute 1988, Oberlech, Austria (July 1988)

61. MIMD-Parallelization
    Invited Lecture, IFIP TC2/WG 2.5 Working Conference on Aspects of Computation on Asynchronous Parallel Processors, Stanford University, Stanford, California (August 1988)

62. Superrechner und ihre Anwendungen
    Bonn, Germany (October 1988)

63. Virtual Shared Memory for Distributed-Memory Machines
    Fourth Conference on Hypercube Concurrent Computers and Applications, Monterey, California (March 1989)

64. Virtual Shared Memory for Distributed-Memory Machines
    University of California at Berkeley (UCB) - ICSI, California (March 1989)

65. Virtual Shared Memory for Distributed-Memory Machines
    Rice University, Houston, Texas (March 1989)

66. Parallelization Tools for Distributed-Memory Multiprocessors
    Oregon Graduate Center, Beaverton, Oregon (March 1989)

67. Programmentwicklung für Numerik auf Parallelrechnern
    Computer Science Seminar, Technical University of Vienna, Austria (June 1989)

68. Programmierumgebungen für parallele Systeme
    Computer Science Seminar, University of Linz and RISC-Linz, Austria (June 1989)

69. Automatic Vectorization and Parallelization for Supercomputers
    Invited Lecture, UNICOM Seminar "Software for Parallel Computers" London, England (June 1989)

70. Automatic Parallelization for Distributed-Memory Machines
    California Institute of Technology, Pasadena, California (June 1989)

71. The SUPERB System
    Invited Lecture, British Computer Society Workshop "Compiling Techniques and Compiler Construction for Parallel Machines", Oxford, England (September 1989)

72. Einführung in Architektur, Anwendungen und Software von Parallelrechnern
    Workshop "Parallelrechnen in Österreich", Technical University of Vienna, Austria (September 1989)

73. Das Parallelisierungssystem SUPERB
    Workshop "Parallelrechnen in Österreich", Technical University of Vienna, Austria (September 1989)

74. Parallelverarbeitung und Supercomputing: Eine Einführung
    Lecture Series "Parallel Computation and Supercomputing", Austrian Computer Society, Vienna, Austria (November 1989)

75. Perspektiven für die Rechner der Neunzigerjahre
    Invited Lecture, Austrian Computer Society, Vienna, Austria (December 1989)

76. Automatische Parallelisierung
    Lecture Series "Parallel Computation and Supercomputing", Austrian Computer Society, Vienna, Austria (17 January 1990)

77. Programmierparadigmen für Parallelrechner
    Invited Lecture, Workshop Partielle Differentialgleichungen: Algorithmen, Software und Anwendungen, ETH Zurich, Switzerland (9 March 1990)

78. Compiling for Distributed Memory Systems (together with Ken Kennedy)
    Tutorial, The Fifth Distributed Memory Computing Conference, Charleston, South Carolina (8 April 1990)

79. Automatic Parallelization in SUPERB
    Computer Science Seminar, Georgia Institute of Technology, Atlanta, Georgia (18 April 1990)

80. Automatic Parallelization in SUPERB
    Computer Science Seminar, Cornell Theory Center/Cornell National Supercomputing Facility, Cornell University, Ithaca, New York (20 April 1990)

81. Automatic Vectorization and Parallelization for Supercomputers
    Invited Lecture, BIRA Conference "Software for Vector and Parallel Computers", Antwerp, Belgium (8 May 1990)

82. SUPERB: Evaluation and Research Outlook
    Invited Lecture, Workshop on Languages, Compilers, and Run-Time Environments for Distributed-Memory Machines, NASA Langley Research Center, Hampton, Virginia (14 May 1990)

83. Präsentation des automatischen Parallelisierungssystems SUPERB (jointly with M.Gerndt)
    University of Vienna, Austria (22 May 1990)

84. Compiling for Distributed-Memory Machines
    Invited Lecture, Third Workshop on Programming Languages and Compilers for Parallel Computing, University of California at Irvine, Irvine, California (3 August 1990)

85. Automatic Parallelization for Distributed-Memory Machines
    Computer Science Seminar, Intel Scientific Computers, Portland, Oregon (7 August 1990)

86. The Automatic Parallelization System SUPERB (jointly with M. Gerndt)
    Computer Science Seminar, University of Illinois at Urbana-Champaign, Illinois (20 August 1990)

87. High-Performance Computing in Europe and the USA
    Enquete "Vernetztes Hochleistungsrechnen in Österreich", Vienna, Austria (24 September 1990)

88. Programmierumgebungen für Parallele Systeme
    CEC-Vienna Seminar, Digital Equipment Corporation, Vienna, Austria (2 October 1990)

89. Programmiersprachen, Compiler und Programmierumgebungen
    First ACPC Workshop, Salzburg, Austria (5 October 1990)

90. Spezifikation numerischer Software für parallele Superrechner
    Invited Lecture, Jahrestagung der Gesellschaft für Informatik Stuttgart, Germany (11 October 1990)

91. Research Topics in Parallel Programming
    Invited Lecture, Workshop on Parallel Programming and Parallel Computer Architecture, Dolna Krupa, Czechoslovakia (22 October 1990)

92. Automatic Parallelization in SUPERB
    Invited Lecture, Workshop on Parallel Programming and Parallel Computer Architecture, Dolna Krupa, Czechoslovakia (23 October 1990)

93. Automatic Support for Data Partitioning
    Invited Lecture, International Workshop on Compilers for Parallel Machines, Paris, France (3 December 1990)

94. Automatic Restructuring
    Invited Lecture, ONREUR-INRIA Workshop "Parallel Computing for Physical Sciences", Paris, France (4 December 1990)

95. Eine Programmierumgebung für parallele Numerik
    Second ACPC Workshop, Vienna, Austria (8 March 1991)

96. Automatic Tools for Programming Parallel Systems
    Seminar on Advanced Topics in Computer Science, Universidad de las Palmas de Gran Canaria, Spain (13 March 1991)

97. Compiling for Distributed-Memory Machines
    ICASE Seminar, NASA Langley Research Center, Hampton, Virginia (15 April 1991)

98. Compiling for Distributed-Memory Machines
    Computer Science Seminar, University of Texas at Dallas, Texas (25 April 1991)

99. Compiling for Distributed Memory Systems (together with Michael Gerndt)
    Tutorial, The Sixth Distributed Memory Computing Conference, Portland, Oregon (28 April 1991)

100. Automatic Support of Data Partitioning
    The Sixth Distributed-Memory Computing Conference (DMCC6) Portland, Oregon (29 April 1991)

101. Programmierumgebungen für Parallele Systeme
    Computer Science Seminar, University of Koblenz, Germany (17 May 1991)

102. Automatische Parallelisierung - Stand der Forschung und zukünftige Entwicklungen
    Computer Science Seminar, University of Erlangen-Nürnberg, Germany (1 July 1991)

103. Vienna Fortran
    First International ACPC-CRPC Workshop, Bad Gastein, Austria (8 July 1991)

104. Current Research in Compiling for Distributed-Memory Machines
    First International ACPC-CRPC Workshop, Bad Gastein, Austria (10 July 1991)

105. Compiling for Parallelism
    Invited Lecture, Seminar on Parallel Computing, IBM Europe Institute 1991, Oberlech, Austria (16 July 1991)

106. Automatic Parallelization
    Invited Lecture, International Conference on Parallel Computing Technologies (PACT'91), Novosibirsk, Russia (9 September 1991)

107. Software Tools for Automatic Parallelization
    Invited Lecture, International Workshop on Parallel Computing in Computational Chemistry and Physics
    Vienna, Austria (18 September 1991)

108. Software Tools for Parallel Program Development
    Invited Lecture, IFIP WG 2.5 Working Conference on Programming Environments for High-Level Scientific Problem Solving, Karlsruhe, Germany (24 September 1991)

109. Compiling for Distributed-Memory Machines (together with Ken Kennedy)
    Tutorial, Supercomputing 91, Albuquerque, New Mexico (18 November 1991)

110. Vienna Fortran (together with Barbara Chapman)
    Systems Colloquium, Yale University, New Haven, Connecticut (25 November 1991)

111. Vienna Fortran Language Specification
    Second Workshop on Algorithms and Software for Parallel Computer Systems, University of Vienna, Austria (9 December 1991)

112. Automatische Parallelisierung für Multiprozessormaschinen mit verteiltem Speicher
    Computer Science Seminar, Technical University of Munich, Germany (22 January 1992)

113. Vienna Fortran
    High Performance Fortran Forum, Rice University, Houston, Texas (27 January 1992)

114. Compiling for Distributed-Memory Machines: Experiences and Recent Research
    Computer Science Seminar, University of Maryland (21 February 1992)

115. Programming in Vienna Fortran (together with Barbara Chapman)
    ICASE Colloquium, ICASE NASA Langley Research Center, Hampton, Virginia (27 February 1992)

116. Automatische Parallelisierung für Multiprozessormaschinen mit verteiltem Speicher
    Computer Science Seminar, GMD Karlsruhe, Germany (29 April 1992)

117. Vienna Fortran
    High Performance Forum Europe, European Community, Brussels, Belgium (19 May 1992)

118. Languages and Compilers for High-Performance Architectures
    Keynote Address, Third Workshop on Compilers for Parallel Computers, University of Vienna, Austria (6 July 1992)

119. Handling Distributed Data in Vienna Fortran Procedures
    Fifth Workshop on Languages and Compilers for Parallel Computing, Yale University, New Haven, Connecticut (4 August 1992)

120. Compiling High Performance Fortran for Distributed-Memory Machines
    Computer Science Colloquium, Purdue University, Lafayette, Indiana (31 August 1992)

121. High Performance Fortran for Parallel Systems: Status and Prospects
    Keynote Address, Annual Seminar, Edinburgh Parallel Computing Centre, Edinburgh, Scotland (28 September 1992)

122. Compiling for Distributed-Memory Multiprocessing Systems
    Tutorial, ERCIM Advanced Course on Programming Distributed Memory Parallel Computers, Paris, France (14 October 1992)

123. Data Distribution in Vienna Fortran
    Workshop on Data Parallel Languages, Supercomputing'92, Minneapolis, Minnesota (18 November 1992)

124. Vienna Fortran and its Compilation
    Computer Science Seminar, Carnegie-Mellon University, Pittsburgh, Pennsylvania (7 December 1992)

125. Vienna Fortran and its Compilation
    Computer Science Seminar, IBM T.J. Watson Research Center, Hawthorne, New York (8 December 1992)

126. Vienna Fortran – Eine Spracherweiterung für Multiprozessorsysteme mit verteiltem Speicher
    Computer Science Seminar, University of Klagenfurt, Austria (15 January 1993)

127. Vienna Fortran and its Applications
    Computer Science Colloquium, Rensselaer Polytechnic Institute, Troy, New York (11 February 1993)

128. Application Programming in Vienna Fortran
    Computer Science Seminar, University of Maryland (19 February 1993)

129. The Vienna Fortran Compilation System
    International Workshop on Algorithms and Software for Parallel Computer Systems, Smolenice, Slovakia (4 March 1993)

130. Programming Complex Applications in Vienna Fortran
    International Workshop on Algorithms and Software for Parallel Computer Systems, Smolenice, Slovakia (5 March 1993)

131. High Performance Fortran Without Templates: A New Model for Data Distribution and Alignment
    Fourth ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming, San Diego, California (21 May 1993)

132. Vienna Fortran
    Tutorial, ERCIM Advanced Course on Programming High Performance Computers, Paris, France (25 May 1993)

133. The Vienna Fortran Compilation System: A Second Generation Compiler for Massively Parallel Systems
    International Workshop on Languages and Compilers for Parallel Computing, Jerusalem, Israel (31 May 1993)

134. Automatic Parallelization for Distributed-Memory Systems (together with Barbara Chapman)
    Tutorial, Parallel Architectures and Languages (PARLE'93), Munich, Germany (14 June 1993)

135. Vienna Fortran: A Second Generation Compiler for Massively Parallel Systems
    Invited Lecture, ParCo93, Grenoble, France (9 September 1993)

136. Massively Parallel Architectures and Their Programming Paradigms: Recent Developments
    Invited Lecture, AICA 93 Annual Conference, Gallipoli, Italy (22 September 1993)

137. Fortran for Parallel Environments: High Performance Fortran and Vienna Fortran
    Invited Lecture, SUPEUR 1993, Vienna, Austria (27 September 1993)

138. Automatic Parallelization for Distributed-Memory Systems: Experiences and Recent Research
    Main Lecture, EURO-ARCH'93 – European Informatics Congress: Computing System Architectures, Munich, Germany (19 October 1993)

139. Languages and Compilers for Massively Parallel Machines
    Keynote Address, ECUC 93 – European Convex Users Conference, Bilbao, Spain (27 October 1993)

140. High Performance Fortran: Language, Applications, and Implementation (together with Barbara Chapman)
    Scientific Parallel Computing Seminar, Chemnitz, Germany (2 November 1993)

141. Dynamic Data Distributions in Vienna Fortran
    Supercomputing'93, Portland, Oregon (17 November 1993)

142. High Performance Fortran Languages and Their Implementation
    Computer Science Colloquium, Linköping University, Sweden (29 November 1993)

143. High Performance Fortran Languages and Their Implementation
    Computer Science Colloquium, Umea University, Sweden (30 November 1993)

144. High Performance Fortran Languages and Their Compilation
    Keynote Lecture, Euromicro Workshop on Parallel and Distributed Processing, Malaga (26 January 1994)

145. Handling Dynamic and Irregular Problems in Vienna Fortran
    Seminar, Department of Computer Science and Engineering, University of California, San Diego (11 February 1994)

146. High Performance Fortran: Current Limitations and Future Directions
    Computer Science Seminar, IBM Toronto (11 April 1994)

147. High Performance Fortran Languages: Advanced Applications and Their Implementation
    Invited Lecture, High Performance Computing and Networking Europe (HPCNE Europe 1994), Munich, Germany (18 April 1994)

148. Handling Irregular and Dynamic Problems in the Vienna Fortran Compilation System
    Keynote Address, First International Conference on Massively Parallel Computing Systems (MPCS'94), Ischia, Italy (3 May 1994)

149. Handling Irregular and Dynamic Problems in Vienna Fortran
    Invited Lecture, Summer School on Parallel Computation in Computational Fluid Dynamics, Delft, Netherlands (3 June 1994)

150. Research at the Institute for Software Technology and Parallel Systems
    First Joint Workshop Kyoto-Vienna, Vienna, Austria (10 June 1994)

151. High Performance Fortran: Current Status and Future Directions
    Invited Lecture, International Advanced Workshop on High Performance Computing. Technology and Applications, Cetraro, Italy (28 June 1994)

152. Research Issues in Languages for High Performance Computing (together with Piyush Mehrotra)
    Advanced Course on Languages, Compilers, and Programming Environments for Scalable Parallel Computers, Vienna, Austria (6 July 1994)

153. Basic Compilation and Optimization Strategies
    Advanced Course on Languages, Compilers, and Programming Environments for Scalable Parallel Computers, Vienna, Austria (6 July 1994)

154. Why High Performance Fortran is not Useful for Advanced Numerical Applications – Directions for Future Developments
    Keynote Address, Second International Workshop on Massive Parallelism: Hardware, Software and Applications, Capri, Italy (7 October 1994)

155. Vienna Fortran – Eine Sprache für die Programmierung von massiv parallelen Supercomputern
    Computer Science Seminar, University of Linz, Austria (20 October 1994)

156. Parallelisierung irregulärer Applikationen in Vienna Fortran
    Kolloquium über Parallelverarbeitung in technisch-naturwissenschaftlichen Anwendungen, Jülich, Germany (24 October 1994)

157. Vienna Fortran – Advanced Applications and Their Implementation
    Computer Science Seminar, University of Barcelona (15 November 1994)

158. Compiler Technology for Massively Parallel Architectures – State of the Art and Current Research
    Invited Lecture, Sixth Workshop on Use of Parallel Processors in Meteorology, Reading, England (23 November 1994)

159. Porting Advanced Numerical Applications to Massively Parallel Machines: A Research Agenda
    Invited Lecture, International Workshop on General Purpose Massively Parallel Systems – The Experience of the C.N.R. Project, Milano, Italy (28 November 1994)

160. Compiling High-Performance Fortran Languages for Massively Parallel Machines
    Tutorial, 1994 International Conference on Parallel and Distributed Systems (ICPADS'94), Hsinchu, Taiwan, ROC (19 December 1994)

161. Extending Vienna Fortran With Task Parallelism
1994 International Conference on Parallel and Distributed Systems (ICPADS'94), Hsinchu, Taiwan, ROC (20 December 1994)

162. High Performance Languages
Tutorial, Aizu International Symposium on Parallel Algorithms/Architecture Synthesis (pAs'95), Aizu-Wakamatsu, Fukushima, Japan (14 March 1995)

163. Supercompilers for Massively Parallel Architectures
Invited Lecture, Aizu International Symposium on Parallel Algorithms/Architecture Synthesis (pAs'95), Aizu-Wakamatsu, Fukushima, Japan (15 March 1995)

164. Vienna Fortran: Language, Implementation, and Advanced Applications
Seminar Lecture, Department of Information Science, Kyoto University, Kyoto, Japan (22 March 1995)

165. Vienna Fortran and its Compilation
Las Palmas Seminar on Computer Sciences, Las Palmas, Gran Canaria, Spain (21 April 1995)

166. Data-Parallel Computation for Sparse Codes
Third Workshop on Languages, Compilers, and Run-Time Systems for Scalable Computers, Troy, New York (24 May 1995)

167. Vienna Fortran and HPF: A Comparison
Department of Computer Science Colloquium, University of Illinois at Urbana-Champaign (25 May 1995)

168. Languages and Compilers for Massively Parallel Machines
Opening Workshop of the VCPC, University of Vienna (13 June 1995)

169. Integrating Task Parallelism and Data Parallelism in the Vienna Fortran Compilation System
5th Workshop on Compilers for Parallel Computers, Malaga, Spain (30 June 1995)

170. Advanced Language Features – The Path Towards HPF-2
Advanced Course on Languages, Compilers, and Programming Environments for Scalable Parallel Computers, Vienna, Austria (11 July 1995)

171. Advanced Compilation Strategies for HPF (together with Siegfried Benkner)
Advanced Course on Languages, Compilers, and Programming Environments for Scalable Parallel Computers, Vienna, Austria (11 July 1995)

172. Languages for Scalable Parallel Architectures
Invited Lecture, Fourth International Parallel Computing Workshop (PCW'95), London, England (25 September 1995)

173. Vienna Fortran and the Path Towards a Standard Parallel Language
Invited Lecture, International Symposium on Parallel and Distributed Supercomputing (PDSC'95), Fukuoka, Japan (28 September 1995)

174. Vienna Fortran and the Path Towards a Standard Parallel Language
Invited Lecture, Cray Distinguished Lecture Series, University of Minnesota, Minneapolis (30 October 1995)

175. Compiling Data Parallel Languages for Scalable Parallel Machines
Invited Lecture, Cray Distinguished Lecture Series, Cray Research Inc., Eagan, Minnesota (31 October 1995)

176. Vienna Fortran: Eine Sprache für die Programmierung von massiv parallelen Hochleistungsrechnern
Colloquium, Institute for Computer Graphics, Technical University of Graz (14 November 1995)

177. Languages and Tools for Parallel Scientific Computing
Invited Lecture, 22nd Seminar on Current Trends in Theory and Practice of Informatics, Milovy, Czech Republic (27 November 1995)

178. OPUS: Abstractions for High Performance Distributed Computing
Invited Lecture, Workshop on Languages and Models for Future Computing Systems, University of Vienna, Austria (23 January 1996)

179. Vienna Fortran – Eine Sprache für die Programmierung von massiv parallelen Hochleistungsrechnern
GMD FIRST Colloquium, Berlin, Germany (29 January 1996)

180. High Performance Applications – State of the Art and Future Requirements
Spring'96 Cray User Group Conference, Barcelona, Spain (14 March 1996)

181. HPF+
Dagstuhl Seminar on Loop Parallelization, Dagstuhl, Germany (17 April 1996)

182. High Performance Languages for Parallel Scientific Computation
Colloquium, School of Mathematics and Physics, University of Bratislava, Bratislava, Slovakia (18 June 1996)

183. Extending High Performance Fortran for Advanced Applications
Sommerschule über Partielle Differentialgleichungen, Numerik und Anwendungen, KFA Jülich, Germany (3 September 1996)

184. High-Level Languages for Parallel Scientific Computation
Scuola per il Dottorato di Ricerca, GII – Grupo Ingegneria Informatica, University of Pavia, Italy (10 September 1996)

185. High-Level Programming Support for Scalable Parallel Systems
Parallel Numerics'96, Gozd Martuljek, Slovenia (11 September 1996)

186. Current State and Future Developments of HPF-Like Languages
Seventh ECMWF Workshop: Use of Parallel Computers in Meteorology, Reading, England (5 December 1996)

187. HPF+: New Language and Implementation Mechanisms for the Support of Advanced Irregular Applications
Sixth Workshop on Compilers for Parallel Computers (CPC'96), Aachen, Germany (12 December 1996)

188. Language Extensions for Irregular Scientific Computation
Computer Science Seminar, Old Dominion University (ODU), Norfolk, Virginia (12 February 1997)

189. High-Level Languages, Compilers and Tools for Parallel Scientific Computation (together with Barbara Chapman)
Cursos CIRIT, Universitat Politecnica de Catalunya, Barcelona, Spain (6-7 March 1997)

190. High Performance Languages for Parallel Scientific Computation
Computer Science Seminar, La Laguna University, Teneriffa, Spain (10 March 1997)

191. Programmiersprachen für skalierbare Hochleistungsrechner
Fakultätskolloquium, Albert-Ludwigs-Universität Freiburg, Freiburg im Breisgau, Germany (4 June 1997)

192. Solving Irregular Problems With High Performance Fortran
3rd Working Conference on Massively Parallel Programming Models (MPPM-97), London (12 November 1997)

193. High-Performance Languages for Parallel Scientific Computation
NASA Computer Science Seminar, NASA Ames Research Center, Moffett Field, California, USA (24 November 1997)

194. HPF+: Effiziente Parallelisierung komplexer Anwendungen in High Performance Fortran
Kolloquium der Fakultät für Informatik, Otto-von-Guericke-Universität Magdeburg, Germany (28 May 1998)

195. High Performance Fortran: History, Status, and Future
Invited Lecture, Fourth International Workshop on Applied Parallel Computing (PARA'98), Umea University, Sweden (15 June 1998)

196. *CEA-EDF-INRIA Summerschool on Computing, Le Breau, France*

   - Lecture 1: Introduction to Parallel Programming Models, Languages, and Tools (29 June 1998)
   - Lecture 2: The Message Passing Approach (30 June 1998)
   - Lecture 3: Shared-Address Space Approaches (1 July 1998)
   - Lecture 4: High Performance Fortran (2 July 1998)
   - Lecture 5: Formulating Advanced Applications With High Performance Fortran (3 July 1998)
   - Lecture 6: Object-Oriented Approaches (6 July 1998)
   - Lecture 7: Parallel Programming Environments (7 July 1998)
   - Lecture 8: Future Developments in Parallel Programming Models, Languages, and Tools (8 July 1998)

197. Opus
Invited Lecture, Workshop on Programming Environments, Clusters, and Computational Grids For Scientific Computing, Blackberry Farm, Tennessee (4 September 1998)

198. High Performance Fortran: Status and Future
ICASE Colloquium, ICASE, Nasa Langley Research Center, Hampton, Virginia (16 September 1998)

199. The Esprit Project HPF+
Computer Science Seminar, Northwestern University, Chicago (6 November 1998)

200. Integrating HPF and OpenMP
ECMWF Workshop: Use of Parallel Computers in Meteorology, European Centre for Medium Range Weather Forecasts, Reading, England (19 November 1998)

201. The Esprit Project HPF+
IRSIP Italian Research Center for Parallel Computing, Naples, Italy (25 March 1999)

202. High-Level Support for Parallel Scientific Computing
Computer Science Seminar, Seconda Universita degli Studi di Napoli, Aversa, Italy (26 March 1999)

203. Das ESPRIT Projekt HPF+: Parallelisierung industrieller Anwendungen in High Performance Fortran
Computer Science Colloquium, Technical University Dresden, Germany (26 April 1999)

204. The ESPRIT Project HPF+
Invited Lecture, International Symposium on High Performance Computing (ISHPC'99), Kyoto, Japan (27 May 1999)

205. Parallelisierung industrieller Anwendungen in High Performance Fortran
Computer Science Colloquium, University of Salzburg, Austria (14 June 1999)

206. Solving Irregular Problems with High Performance Fortran
Computer Science Colloquium, University of Delaware, Newark, Delaware, USA (10 September 1999)

207. Solving Irregular Problems with High Performance Fortran
Computer Science Colloquium, Notre Dame University, South Bend, Indiana, USA (14 September 1999)

208. Towards an Execution Model for the HTMT Architecture
HTMT-7 Workshop on Hybrid Technology Multithreaded Architecture for Petaflops Computing, Half Moon Bay, California, USA (10 December 1999)

209. Programming Models for Petaflops Computing
First International Aurora Conference (IAC 2000), Vienna, Austria (10 January 2000)

210. Macroservers – An Execution Model for DRAM Processor-in-Memory Arrays
Computer Science Seminar, Department of Computer Science, California Institute of Technology, Pasadena, California, USA (2 February 2000)

211. Solving Irregular Problems with High Performance Fortran
    Computer Science Seminar, Center for Advanced Computing Research (CACR), California Institute of Technology, Pasadena, California, USA (3 February 2000)

212. Macroservers
    Invited Lecture, Distinguished Lecturer Series, Department of Computer Science, Texas A&M University, College Station, Texas (28 April 2000)

213. Support for Irregular Computations in Massively Parallel PIM Arrays, Using an Object-Based Execution Model.
    Proc.Irregular'2000, Cancun, Mexico (5 May 2000)

214. Macroservers: A New Execution Model for Processor-in-Memory Arrays
    Invited Lecture, Advanced Research Workshop on High Performance Computing – Technology and Applications, Cetraro, Italy (12 June 2000)

215. A New Programming and Execution Model for Processor-in-Memory Arrays
    Computer Science Colloquium, Dipartimento di Scienze dell' Informazione, Universita di Roma "La Sapienza", Rome, Italy (16 June 2000)

216. Macroservers: An Object-Based Programming and Execution Model for Processor-in-Memory Arrays
    Invited Lecture, International Symposium on High Performance Computing (ISHPC2K), Tokyo, Japan (18 October 2000)

217. High Level Language Support for Parallel Architectures
    Invited Lecture, Center for Novel Computing (CNC) Tenth Birthday Symposium, University of Manchester, UK (24 November 2000)

218. Programming and Execution Models for Processor-in-Memory Arrays
    Keynote Address, 7th International Conference on High Performance Computing (HiPC 2000), Bangalore, India (20 December 2000)

219. An Execution Model for the Gilgamesh Architecture
    Computer Science Seminar, University of Southern California, Los Angeles, California, USA (15 February 2001)

220. An Execution Model for Processor-in-Memory Based Parallel Architectures
    Computer Science Seminar, Jet Propulsion Laboratory, Pasadena, California, USA (27 February 2001)

221. The Gilgamesh Architecture and its Execution Model
    Computer Science Seminar, IBM T.J. Watson Research Center, Hawthorne, New York, USA (2 March 2001)

222. High-Level Control of Data and Work Distribution for Parallel Architectures
    Invited Lecture, Colloquium on Formal Aspects of Software Engineering, Graz University of Technology, Austria (19 May 2001)

223. High-Level Programming Support for HPC – The Tradeoff Between Elegance and Performance
    Invited Lecture, International Supercomputer Conference (SC 2001), Heidelberg, Germany (23 June 2001)

224. The Gilgamesh Processor-in-Memory Architecture and Its Execution Model
    9th Workshop on Compilers for Parallel Computers (CPC 2001), Edinburgh, Scotland (28 June 2001)

225. Towards High-Level Programming Support for Scientific Computing on Clusters
    Keynote Address, *IEEE Cluster2001 Conference*, Newport Beach, California, USA (10 October 2001)

226. Grid Computing in AURORA
    International AURORA Workshop on Grid Computing, Vienna, Austria (11 December 2001)

227. The Gilgamesh Processor-in-Memory Architecture and Its Execution Model
    Southern California Parallel Processing Workshop, Irvine, California (5 March 2002)

228. Programming Paradigms for High Performance Computing
    Computer Science Seminar, Center for Advanced Computing Research, California Institute of Technology, Pasadena, California (26 March 2002)

229. High Performance Fortran – History, Status, and Future
    Invited Talk, HiWEP2002, 4th International Symposium on High Performance Computing (ISHPC2002), Kansai Science City, Japan (16 May 2002)

230. The Cascade Programming and Execution Model: A First Approach
    JPL High Performance Computing Software Seminar, Pasadena, California (17 October 2002)

231. The Cascade Programming and Execution Model: A First Approach
    Southern California Parallel Processing Workshop, Santa Barbara, California (28 October 2002)

232. The Cascade Programming and Execution Model: A First Approach
    JPL Information Technology Symposium, Pasadena, California (4 November 2002)

233. Gilgamesh: A Multithreaded Processor-In-Memory Architecture for Petaflops Computing
    SC2002 – High Performance Networking and Computing, Baltimore (20 November 2002)

234. Towards a Programming and Execution Model for Cascade
    Distinguished Speakers Series, University of Illinois at Champaign-Urbana (24 February 2003)

235. Issues in Software Support for Future High End Computing Systems
    Workshop on the Road Map for the Revitalization of High End Computing, Washington, DC (17 June 2003)

236. Managing and Using Millions of Threads
    FastOS Workshop, Washington, DC (9 July 2003)

237. High-Level Programming Support for Cascade
JPL High Performance Computing Software Seminar, Pasadena, California (7 August 2003)

238. New Developments in Cascade
AURORA Colloquium, University of Vienna, Vienna, Austria (1 September 2003)

239. Introspection in a Massively Parallel PIM-Based Architecture
Parallel Computing 2003 Conference (ParCo2003), Dresden, Germany (3 September 2003)

240. High-Level Programming Paradigms for PetaFlops Supercomputers
Invited Talk, Workshop on Petaflops Programming: Parallelism, Pain and Perverse Programming Paradigms.
SC2003 – High Performance Networking and Computing, Phoenix, Arizona (November 2003)

241. PIM-based Introspection
Workshop on Software for Processor-In-Memory Based Parallel Systems, Palo Alto, California (21 March 2004)

242. **Opening Address**
Workshop on High Productivity Languages and Models, Santa Monica, California (18 May 2004)

243. The Cascade Architecture and its Programming Language
AURORA Workshop, Strobl/Wolfgangsee, Austria (5 June 2004)

244. High Productivity Languages Workshop Summary
High Productivity Computing Systems Program and Productivity Summit, Washington, DC (29 June 2004)

245. Towards Future Programming Models and Paradigms for High Productivity Computing
Invited Lecture, IFIP WG 10.3 E-Seminar/Technical Working Session (Teleconference Presentation) (7 September 2004)

246. Thoughts on Future Programming Models
HPC User Forum Agenda, Tucson, Arizona (22 September 2004)

247. Programming Models and Languages for High Productivity Computing Systems
Eleventh ECMWF Workshop on Use of High Performance Computing in Meteorology, Reading, UK (26 October 2004)

248. Cascade and its High Productivity Programming Language
Workshop on High Productivity Computing, JPL, Pasadena, CA (5 November 2004)

249. High Productivity Programming Languages
HPCS Workshop, SC2004, Pittsburgh, PA (8 November 2004)

250. High Productivity Language Systems
Invited Lecture, PIC Seminar, IBM T.J.Watson Research Center, Yorktown Heights, NY (6 December 2004)

251. Towards Programming Languages and Models for High Productivity Computing
Invited Lecture, National Coordination Office for Information Technology Research and Development (Teleconference Presentation) (11 May 2005)

252. Programming Languages for High Productivity Computing Systems
Seminar, Jet Propulsion Laboratory, California Institute of Technology (16 May 2005)

253. Programming Models for Parallel High Performance Computing
Invited Lecture, University of Vienna, Austria (16 June 2005)

254. The Cascade Programming Language Chapel
Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California (12 July 2005)

255. Towards High Productivity Languages for Petaflops Computing
Invited Lecture, AHPCRC-DARPA HPCS Programming Models Meeting, Minneapolis, Minnesota (14 September 2005)

256. Towards Programming Languages and Models for High-Productivity Computing
Invited Lecture, Dagstuhl Seminar on Architectures and Algorithms for Petascale Computing, Schloss Dagstuhl International Conference and Research Center, Germany (14 February 2006)

257. Towards High-Productivity Programming Paradigms for Peta-Scale Computing
Invited Lecture, Symposium on Grid and Ubiquitous Computing, University of Aizu, Fukishima, Japan (27 February, 2006)

258. High-Productivity Programming Languages for Peta-Scale Systems
Invited Lecture, University of California at Irvine (2 March 2006)

259. Chapel: A High-Productivity Language for Peta-Scale Computing
AURORA Workshop, Strobl/Wolfgangsee, Austria (10 June 2006)

260. High Productivity Languages for Parallel Architectures: Introduction and Overview
Workshop on High Productivity Languages and Models, The 20th ACM International Conference on Supercomputing (ICS06), Cairns, Queensland, Australia (1 July 2006)

261. An Approach to User-Defined Data Distributions in Chapel
Workshop on High Productivity Languages and Models, The 20th ACM International Conference on Supercomputing (ICS06), Cairns, Queensland, Australia (1 July 2006)

262. Programming Models and Languages for Peta-Scale Computing
Invited Lecture, NASA Ames Research Center, Moffett Field, California (25 September 2006)

263. High-Productivity Languages for Peta-Scale Computing
Invited Lecture, Technical University Munich, Germany (26 October 2006)

264. From HPF to Locality-Aware High-Productivity Languages
Invited Lecture, Sandia Workshop on Programming Languages for High Performance Computing, Albuquerque, New Mexico (13 December 2006)

265. High-Productivity Languages for Peta-Scale Computing
Keynote Address, IASTED International Conference on Parallel and Distributed Computing and Networks, Innsbruck, Austria (13 February 2007)

266. The Rise and Fall of High Performance Fortran: An Historical Object Lesson
Third ACM SIGPLAN History of Programming Languages Conference (HOPL-III), San Diego, California (10 June 2007)

267. The Priority Research Program AURORA (together with Karlheinz Schwarz)
AURORA 2007 International Conference on Scientific Computing, Vienna, Austria (19 June 2007)

268. High Productivity Programming Languages and Models
AURORA 2007 International Conference on Scientific Computing, Vienna, Austria (20 June 2007)

269. Advanced Programming and Execution Models for Future Multi-Core Systems
Invited Lecture, Eleventh Annual Workshop on High Performance Embedded Computing (HPEC 2007), Massachusetts Institute of Technology, Lincoln Laboratory, Lexington, MA (18 September 2007)

270. High Performance Multicore Systems in Space? – Challenges and Opportunities
Invited Lecture, NASA Ultra Reliability Workshop, Greenbelt, MD (3 October 2007)

271. Parallel Computing: From Humble Beginnings to High-Capability Space-Borne Systems
Invited Lecture, Austrian Science Talks, Los Angeles, CA (15 October 2007)

272. Towards High-Productivity Programming and Execution Models for Multi-Core Based Parallel Systems
Carnegie-Mellon University, Pittsburgh, PA (24 October 2007)

273. High-Capability Computation in Space
Invited Lecture, 11th International Workshop on Innovative Architectures for Future Generation High Performance Processors and Systems (IWIA'08), Hilo, Hawaii (23 January 2008)

274. An Introspection Framework for Fault Tolerance in Support of Autonomous Space Systems (with Andrew Shapiro)
IEEE 2008 Aerospace Conference, Big Sky, MT (6 March 2008)

275. The Multi-Core Revolution and Autonomous Missions: Programming Models and Fault Tolerance for High-Capability Computing in Space SQI Software Seminar Series, Jet Propulsion Laboratory, Pasadena, CA (10 July 2008)

276. High-Productivity Programming and Execution Models for Multi-Core Based Parallel Systems
Keynote Address, 2008 IEEE 11th International Conference on Computational Science and Engineering (CSE 2008), Sao Paulo, Brazil (16 July 2008)

277. High-Productivity Languages for Peta-Scale Computing
Keynote Address, Fujitsu HPC Forum2008, Tokyo, Japan, August 27, 2008

278. Programming Models for Emerging Multi-Core Systems
Invited Presentation, Rikagaku Kenkyusho (RIKEN Research Institute), Tokyo, Japan, August 28, 2008

279. High-Performance Cluster Computing in Space – Challenges and Opportunities
Invited Presentation, Workshop on Clusters and Computational Grids for Scientific Computing
http://www.cs.utk.edu/ dongarra/ccgsc2008
Ashville, North Carolina, September 17, 2008

280. Fault Tolerance for Multi-Core Based High-Capability Computation in Space
Twelfth Annual Workshop on High Performance Embedded Computing (HPEC 2008), MIT Lincoln Laboratory, Lexington, Massachusetts, September 23, 2008

281. Adaptive Fault Tolerance for Space-Borne Computing
12th International Workshop on Innovative Architectures for Future Generation High-Performance Processors and Systems (IWIA'09), Maui, Hawaii, March 16, 2009

282. Introspection-Based Adaptive Fault Tolerance
Second Workshop on Fault-Tolerant Spaceborne Computing Employing New Technologies, Sandia National Laboratories, Albuquerque, NM, May 26, 2009

283. Towards High-Level Languages for Reliable Flight Computing
Invited Presentation, Second Workshop on Fault-Tolerant Spaceborne Computing Employing New Technologies, Sandia National Laboratories, Albuquerque, NM, May 27, 2009

284. High-Productivity Languages for Peta-Scale Computing
Keynote Address, 2009 International Symposium on High Performance Distributed Computing (HPDC 2009), Munich, Germany, June 13, 2009

285. Models and Tools for Spaceborne Computing
Invited Presentation, Workshop on Multicore Processors for Space–Opportunities and Challenges, Third IEEE International Conference on Space Missions Challenges for Information Technology (SMC-IT 2009), Pasadena, July 21, 2009

286. Introspection-Based Fault Tolerance
Invited Presentation, Workshop on Multicore Processors for Space–Opportunities and Challenges, Third IEEE International Conference on Space Missions Challenges for Information Technology (SMC-IT 2009), Pasadena, July 21, 2009

287. Introspection-Based Verification and Validation
Third IEEE International Conference on Space Missions Challenges for Information Technology (SMC-IT 2009), Pasadena, July 23, 2009

288. Runtime Verification and Validation for Multi-Core Based On-Board Computing
Thirteenth Annual Workshop on High Performance Embedded Computing (HPEC 2009), MIT Lincoln Laboratory, Lexington, Massachusetts, September 23, 2009

289. Chapel: A Language for High-Productivity Parallel Programming
Space-Borne Computing Seminar, Jet Propulsion Laboratory, Pasadena, CA, February 22, 2010

290. High-Level Specification of Data Distribution for Many-Core Based Parallel Systems
International Workshop on Innovative Architectures for Future Generation High-Performance Processors and Systems (IWIA'10), Kohala Coast, Hawaii, March 23, 2010

291. Adaptive Fault Tolerance for Many-Core Based Parallel Computation in Space
Invited Presentation, Advances of Informatics and Earth & Cosmic Sciences (AIECS)–First Conference of Academia Europaea, Graz, Austria, August 31, 2010

292. Adaptive Fault Tolerance for Many-Core Based Space-Borne Computing
Distinguished Lecture, Sixteenth International European Conference on Parallel and Distributed Computing (Euro-Par 2010), Ischia, Italy, September 2, 2010

293. Enhancing the Dependability of Extreme-Scale Applications
Invited Presentation, Workshop on Clusters, Clouds, and Grids for Scientific Computing 2010 (CCGSC 2010), Flat Rock, North Carolina, September 10, 2010

294. Automatic Generation of Fault-Tolerant Source Code
The Fourth Workshop on Fault-Tolerant Spaceborne Computing Employing New Technologies 2011, Software Working Group, Albuquerque, New Mexico, May 24, 2011

295. Fault Tolerance for High-Performance Computing in Space
University of Salzburg, Austria, June 16, 2011

296. Adaptive Fault Tolerance for High-Performance Computing in Space
Fourth IEEE International Conference on Space Missions Challenges for Information Technology (SMC-IT 2011), Palo Alto, California, August 2, 2011

297. Towards a Unifying Framework for Power-Efficient Fault-Tolerant Computing
The Sixth Meeting on Fault -Tolerant Spaceborne Computing Employing New Technologies 2013, Albuquerque, New Mexico, May 29, 2013