

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEL CORPORATION
Petitioner,

v.

ADVANCED CLUSTER SYSTEMS, INC.,
Patent Owner.

IPR2025-00915
U.S. Patent No. 11,563,621

PETITIONER'S UPDATED EXHIBIT LIST

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August 11, 2026

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Ex.1006	"MultiMATLAB: MATLAB on Multiple Processors," Trefethen et al., 1996 Computer Science Technical Report, Cornell University 1996
Ex.1007	"RS/6000 SP: Planning Vol. 1, Hardware and Physical Environment," IBM 2001
Ex.1008	"Operation and Use, Volume 1, Using the Parallel Operating Environment," IBM 2001
Ex.1009	"Single program multiple data" in Dictionary of Algorithms and Data Structures, P. E. Black, (accessible at https://www.nist.gov/dads/HTML/singleprogrm.html) December 2004
Ex.1010	The RS/6000 SP Inside Out" to Barrios et al., IBM 1999
Ex.1011	"High Performance Cluster Computing: Programming and Applications," Rajkumar Buyya, Vol. 2, 1999
Ex.1012	"Analysis of 100Mb/s Ethernet for the Whitney Commodity Computing Testbed," Fineberg et al., NAS Technical Report NAS-97-025 1997
Ex.1013	"A Parallel Linear Algebra Server for Matlab-like Environments," G. Morrow et al., SC '98: Proceedings of the 1998 ACM/IEEE Conference on Supercomputing 1998
Ex.1014	"Parallel MATLAB: Doing It Right," R. Choy et al., Proceedings of the IEEE, Vol. 93, No. 2, 2005

Ex.1015	"Mathematica Parallel Computing Toolkit - Unleash the Power of Parallel Computing," R. Maeder, 2005
Ex.1016	"Mastering MATLAB® 5 – A Comprehensive Tutorial and Reference," D. Hanselman et al., 1998
Ex.1017	"MPI: A Message-Passing Interface Standard," Message Passing Interface Forum, 1994
Ex.1018	"Modern Operating Systems," A.S. Tanenbaum, 2001
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Ex.1049	MPIref at Argonne National Laboratory
Ex.1050	"Nvidia, AMD CEOs Rally Behind President Trump's AI 'Action Plan'," B. Lin, Wall Street Journal, July 24, 2025.
Ex.1051	"Microsoft offers cloud customers AMD alternative to Nvidia AI processors," M. Cherney, Reuters, May 17, 2024.
Ex.1052	"What milestone advancements in computer chips mean for the military," Breaking Defense
Ex.1053	"Lawrence Livermore National Laboratory's El Capitan verified as world's fastest supercomputer," LLNL

Ex.1054	"Economic Contributions of Data Centers in the United States, 2017-2023," PWC, Feb. 2025
Ex.1055	Senate hearing on "Winning the AI Race: Strengthening U.S. Capabilities in Computing and Innovation," May 8, 2025
Ex.1056	"DoD Extends Contract for ORAN-based Private 5G Networks through 2025," Echostar, March 18, 2024
Ex.1057	"HPE selected to deliver supercomputers for DoD computing modernization program," M. Iriarte, Military Embedded Systems, February 20, 2018
Ex.1058	"ZMicro to Provide Rugged Computers for US Sky Warden Aircraft," R. Manuel, The Defense Post, Oct. 6, 2022
Ex.1059	"Argonne National Laboratory's Aurora 2+ ExaFLOPS System Will Enable New Science and Engineering," Intel
Ex.1060	"Intel battles AMD with new data center chips," Cherney et al, Reuters, June 4, 2024
Ex.1061	"X86 vs. ARM: A Deep Dive into the Architecture," Semicon Electronics, October 28, 2024
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Ex.1075	“Oracle and AMD Collaborate to Help Customers Deliver Breakthrough Performance for Large-Scale AI and Agentic Workloads,” Oracle, June 12, 2025.
Ex.1076	“How AMD is Intensifying AI Chip Focus Amid Global Tech Race,” Technology Magazine, Nov. 17, 2024.
Ex.1077	“AMD’s AI Chips Gain Ground in Data Centers: A Sign for More Upside?,” Zacks Equity Research, July 16, 2025.
Ex.1078	“Transcript: Sam Altman Testifies At US Senate Hearing On AI Competitiveness,” TechPolicy.Press, May 8, 2025.
Ex.1079	“Meta's Obsession With AI Is Great News For AMD,” Seeking Alpha, July 9, 2025.
Ex.1080	U.S. Patent Publication No. 2005/0021751
Ex.1081	U.S. Patent No. 6,074,427
Ex.1082	“USPTO rescinds memorandum addressing discretionary denial procedures,” USPTO, Feb. 28, 2025
Ex.1083	Reserved
Ex.1084	Reserved
Ex.1085	Claim Construction Order; <i>Advanced Cluster Systems, Inc. v. Advanced Micro Devices, Inc., Intel Corporation</i> ; Case No. 7:24-cv-00244-ADA and 7:24-cv-00245-ADA; Dkt.87; Filed 09/26/25
Ex.1086	Declaration Of Ingrid Hsieh-Yee, Ph.D.
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Ex.1088	Nilges, <i>The Online Computer Library Center's Open WorldCat Program</i> , Library Trends (2006)
Ex.1089	ACM copy of Menon
Ex.1090	WorldCat.org record for SC'97
Ex.1091	SC'97 Academia Sinica bibliography
Ex.1092	Internet Archive copy of Menon (archived 1998)
Ex.1093	Archived webpages related to SC'97
Ex.1094	Harrop et al., <i>Supporting runtime tool interaction for parallel simulations</i> , SC'98: Proceedings of the 1998 ACM/IEEE Conference on Supercomputing (pp. 37-37) ("Harrop")
Ex.1095	Rana et al., <i>An XML based component model for generating scientific applications and performing large scale simulations in a meta-computing environment</i> , International Symposium on Generative and Component-Based Software Engineering (pp. 210-224) ("Rana")
Ex.1096	Almasi et al., <i>MaJIC: A MATLAB just-in-time compiler</i> , International Workshop on Languages and Compilers for Parallel Computing (pp. 68-81) ("Almasi")
Ex.1097	Houstis et al., <i>On the Future of Problem Solving Environments</i> , Department of Computer Science Technical Reports, Report number 00-009, Paper 1487 ("Houstis")
Ex.1098	Internet Archive copy of Trefethen (archived May 1996)
Ex.1099	Cornell copy of Trefethen
Ex.1100	Trefethen Internet Archive materials
Ex.1101	Trefethen bibliography Washington State University Library
Ex.1102	Lang, <i>A multi-threaded extension to a high level interactive statistical computing environment</i> , Doctoral Dissertation, University of California, Berkeley (Fall 1997)
Ex.1103	Lang dissertation bibliography University of California, Berkeley Library

Ex.1104	Quinn et al., <i>Preliminary results from a parallel MATLAB compiler</i> , Proceedings of the First Merged International Parallel Processing Symposium and Symposium on Parallel and Distributed Processing (pp. 81-87) (1998)
Ex.1105	Quinn bibliography Linda Hall Library
Ex.1106	Quinn bibliography Michigan Technological University
Ex.1107	Chauveau et al., <i>Menhir: An environment for high performance Matlab</i> , International Workshop on Languages, Compilers, and Run-Time Systems for Scalable Computers (pp. 27-40) ("Chauveau")
Ex.1108	Chauveau Bibliography Library of Congress
Ex.1109	Internet Archive copy of RS6000 (June 17, 2001)
Ex.1110	Archived webpages showing path to RS6000
Ex.1111	Archived webpages showing alternate path to RS6000
Ex.1112	Moncrief, <i>IBM RS/6000</i> , available at https://users.cs.jmu.edu/abzugcx/Public/Student-Produced-Term-Projects/Computer-ARCHITECTURE-2002-SUMMER/IBM-RS-6000-by-Robert-Moncrief-2002-SUMMER-CS-585.doc
Ex.1113	Archived webpages showing path to POEref
Ex.1114	Saif et al., <i>Understanding the behavior and performance of non-blocking communications in MPI</i> , European Conference on Parallel Processing (pp. 173-182) (August 2004) ("Saif")
Ex.1115	Saif bibliography Library of Congress
Ex.1116	U.S. Pub. No. 2005/0078605 to Huang et al. ("Huang")
Ex.1117	Internet Archive copy of MPIref (July 3, 1998)
Ex.1118	Archived webpages showing path to MPIref
Ex.1119	Gropp et al., <i>Implementing MPI: the 1994 MPI implementors' workshop</i> , Proceedings Scalable Parallel Libraries Conference (pp. 55-59) (October 1994)
Ex.1120	MPIref bibliography National Science Library of Canada
Ex.1121	MPIref bibliography University of Edinburgh

Ex.1122	Majumdar, <i>Fibers: A high performance MPMD mechanism for integrated asynchronous data and control transfer</i> , Doctoral Dissertation, Yale University (1994)
Ex.1123	Majumdar bibliography Yale University Library
Ex.1124	Huber Jr. et al., <i>PPFS: A high performance portable parallel file system</i> , Proceedings of the 9th International Conference on Supercomputing (pp. 385-394) (1995)
Ex.1125	Huber Jr. bibliography ACM Digital Library
Ex.1126	Bhat et al., <i>Issues in using heterogeneous HPC systems for embedded real time signal processing applications</i> , Proceedings of the 2nd International Workshop on Real-Time Computing Systems and Applications (RTCSA '95) (October 1995)
Ex.1127	Bhat bibliography IEEE
Ex.1128	Worley, <i>MPI performance evaluation and characterization using a compact application benchmark code</i> , Proceedings Second MPI Developer's Conference (pp. 170-177) (1996)
Ex.1129	Worley bibliography Linda Hall Library
Ex.1130	Karpievitch et al., <i>mGrid: A load-balanced distributed computing environment for the remote execution of the user-defined Matlab code</i> , BMC Bioinformatics 2006, 7:139 (March 15, 2006)
Ex.1131	Pfarrhofer et al., <i>Distributed Optimization of Fiber Optic Network Layout Using MATLAB</i> , ICCSA 2004, LNCS 3045, pp. 538-547 (2004)
Ex.1132	Elphick et al., <i>Partial Evaluation of MATLAB</i> , GPCE 2003, LNCS 2830, pp. 344-363 (2003)
Ex.1133	Fernández et al., <i>Performance of Message-Passing MATLAB Toolboxes</i> , VECPAR 2002, LNCS 2565, pp. 228-242 (2003)
Ex.1134	Bekas et al., <i>Parallel Computation of Pseudospectra using Transfer Functions on a MATLAB-MPI Cluster Platform</i>
Ex.1135	Bekas et al., <i>Parallel Computation of Pseudospectra Using Transfer Functions on a MATLAB-MPI Cluster Platform</i> , Euro PVM/MPI 2002, LNCS 2474, pp. 199-207 (2002)

Ex.1136	Rana et al., <i>Agent based Service Integration for Distributed Problem Solving Environments</i> , Proceedings of the 34th Hawaii International Conference on System Sciences (2001)
Ex.1137	Li et al., <i>Wrapping MPI-based legacy codes as Java/CORBA components</i> , Future Generation Computer Systems 18, pp. 213-223 (2001)
Ex.1138	Almasi et al., <i>MaJIC: A Matlab Just-In-time Compiler</i> , LCPC2000, LNCS 2017, pp. 68-81 (2001) (<i>duplicate of Ex.1096</i>)
Ex.1139	Rana et al., <i>Implementing Problem Solving Environments for Computational Science</i> , Euro-Par 2000, LNCS 1900, pp. 1345-1349 (2000)
Ex.1140	Rana et al., <i>An XML Based Component Model for Generating Scientific Applications and Performing Large Scale Simulations in a Meta-computing Environment</i> , GCSE'99, LNCS 1799, pp. 210-224 (2000) (<i>duplicate of Ex.1095</i>)
Ex.1141	Menon et al., <i>A Case for Source-Level Transformations in MATLAB</i> , Proceedings of DSL'99: The 2nd Conference on Domain-Specific Languages, Austin, Texas, USA (October 3-6, 1999)
Ex.1142	Menon (ACM copy)
Ex.1143	Casanova et al., <i>Applying Netsolve's Network-Enabled Server</i> , IEEE Computation, Science & Engineering, pp. 57-67 (July-September 1998)
Ex.1144	Bikshandi et al., <i>Programming for Parallelism and Locality with Hierarchically Tiled Arrays</i> , PPOPP'06 New York, pp. 48-57 (March 29-31, 2006)
Ex.1145	Guo et al., <i>Hierarchically Tiled Arrays for Parallelism and Locality</i> , IEEE (2006)
Ex.1146	Kepner et al., <i>MatlabMPI</i> (Jan 3, 2003)
Ex.1147	Fernández et al., <i>Performance of Message-Passing MATLAB Toolboxes</i> , VECPAR 2002, LNCS 2565, pp. 228-242 (2003) (<i>duplicate of Ex.1133</i>)
Ex.1148	Banerjee et al., <i>A MATLAB Compiler For Distributed, Heterogeneous, Reconfigurable Computing Systems</i> , IEEE (2000)

Ex.1149	Halдар et al., <i>Match Virtual Machine : An Adaptive Runtime System to execute MATLAB in Parallel</i> , IEEE (2000)
Ex.1150	Chauveau et al., <i>Menhir: An environment for high performance Matlab</i> , Scientific Programming 7, pp. 303-312 (1999)
Ex.1151	Wu et al., <i>Distributed Data Structure Design for Scientific Computation</i> , ICS 98 Melbourne Australia, pp. 227-234 (1998)
Ex.1152	Chen et al., <i>Fault Tolerant High Performance Computing by a Coding Approach</i> , PPOPP'05 Chicago (June 15-17, 2005)
Ex.1153	Bader et al., <i>Practical Parallel Algorithms for Dynamic Data Redistribution, Median Finding, and Selection</i> , Proceedings of IPPS '96, pp. 292-301 (1996)
Ex.1154	Bustamante et al., <i>Efficient Wire Formats for High Performance Computing</i> , IEEE (2000)
Ex.1155	Sirotkin et al., <i>Parallel Schwarz methods for convection-dominated semilinear diffusion problems</i> , Journal of Computational and Applied Mathematics 145, pp. 189-211 (2002)
Ex.1156	Hascoët et al., <i>Automatic Placement of Communications in Mesh-Partitioning Parallelization</i> , PPOPP '97 Las Vegas, pp. 136-144 (1997)
Ex.1157	Park et al., <i>Efficient Algorithms for Block-Cyclic Array Redistribution between Processor Sets</i> , SC '98 Orlando, pp. 1-13 (1998)
Ex.1158	Chang et al., <i>Low-Latency Communication on the IBM RISC System/6000 SP</i> , IEEE (1996)
Ex.1159	Karamceti et al., <i>Software Overhead in Messaging Layers: Where Does the Time Go?</i> , ASPLOS VI - 10/94 San Jose, pp. 51-60 (1994)
Ex.1160	Wong et al., <i>Architectural Requirements and Scalability of the NAS Parallel Benchmarks</i> , SC '99 Portland (1999)
Ex.1161	Xu et al., <i>Optimal Software Multicast in Wormhole-Routed Multistage Networks</i> , IEEE (1994)
Ex.1162	AMD Settlement Agreement (filed under seal)

Ex.1163	Supplemental Declaration of Dr. Chandrajit L. Bajaj under 37 C.F.R. § 1.68
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Ex.1169 (NEW)	Petitioner's Oral Argument Demonstratives

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies, under 37 C.F.R. § 42.6, that service was made on the Patent Owner as detailed below.

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