

## MAIN REFEREED PUBLICATIONS

1. Sobolewski, M. & Kolonay, R.M., The Convergence of Three Languages for Transdisciplinary Computing, ISPE Concurrent Engineering 2011: Improving Complex Systems Today, CE2011 at MIT, July 4-July 8, 2011.
2. Kolonay, R. M. & Sobolewski, M., Service ORiented Computing EnviRonment (SORCER) for Large Scale, Distributed, Dynamic Fidelity Aeroelastic Analysis & Optimization, International Forum on Aeroelasticity and Structural Dynamics, IFASD2011, 26-30 June, Paris, France.
3. M. Sobolewski, (Keynote), Provisioning Object-oriented Service Clouds for Exertion-oriented Programming. The 1st International Conference on Cloud Computing and Services Science, CLOSER 2011, Noordwijkerhout, the Netherlands, 7-9 May 2011, SSRI, Springer-Verlag.
4. Sobolewski, M., (Keynote) Exerted Enterprise Computing: From Protocol-Oriented Networking to Exertion-Oriented Networking, R. Meersman et al. (Eds.): OTM 2010 Workshops, LNCS 6428, 2010, Springer-Verlag Berlin Heidelberg 2010, pp. 182–201.
5. Sobolewski, M. & A. Ghosh, A., "Version Control Management for Federated Service-oriented File Sharing", Jerzy Pokojski, Shuichi Fukuda, Józef Salwiński (Eds.), New World Situation: New Directions in CE, Proceedings of the 17th ISPE Intl Conference on CE, Springer-Verlag London 2010, ISBN 978-0-85729-023-6, pp. 191-202.
6. Garcia-Lopez, P., Sanchez-Artigas, M., Sobolewski, M. (Eds.), P2P Technologies for Emerging Wide-Area Collaborative Services and Applications, Computer Networks, Special Issue, Elsevier, Vol 54:12, August 26, 2010.
7. Sobolewski, M., "Object-Oriented Metacomputing with Exertions," Handbook On Business Information Systems, A. Gunasekaran, M. Sandhu, World Scientific, ISBN: 978-981-283-605-2, 2010, pp. 853-887.
8. Sobolewski, M., "Metacomputing with Federated Method Invocation", Advances in Computer Science and IT, edited by M. Akbar Hussain, In-Tech, intechweb.org, ISBN 978-953-7619-51-0, s. 337-363, 2009.
9. Rubach, P. & M. Sobolewski, M., "Autonomic SLA Management in Federated Computing Environments," Parallel Processing, 2009. ICCP '09 Workshops, International Conference on, IEEE Computer Society, 2009
10. Rubach, P. & Sobolewski, M., "Dynamic SLA Negotiation in Autonomic Federated Environments," On the Move to Meaningful Internet Systems: OTM 2009 Workshops, 2009, s. 248-258.
11. Sobolewski, M., 2008, Federated Collaborations with Exertions, 17h IEEE International Workshop on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE), pp.127-132.
12. Satish Vellanki, Michael Sobolewski, Federated Role-based Access Control in Exertion-oriented Programming, 4th Annual Symposium on Information Assurance (ASIA'09,) Albany, NY, June 3-4, 2009.
13. C. Hard, M. Sobolewski, "File Location Management in Federated Computing Environments, International Journal of Recent Trends in Engineering (Computer Science), Vol. 1, No. 1, June 2009, pp. 512-517.

14. Sobolewski, M, 2008, SORCER: Computing and Metacomputing Intergrid, 10th International Conference on Enterprise Information Systems, Barcelona, Spain (2008). Available at:  
[http://sorcer.cs.ttu.edu/publications/papers/2008/C3\\_344\\_Sobolewski.pdf](http://sorcer.cs.ttu.edu/publications/papers/2008/C3_344_Sobolewski.pdf).
15. Kerr, D., Sobolewski, M., 2008, Secure Space Computing with Exertions, 3rd Annual Symposium on Information Assurance (Best Paper Award for ASIA'08).
16. Goel, S., Talya, S.S., Sobolewski, M., 2008, Mapping Engineering Design Processes onto a Service-Grid: Turbine Design Optimization, International Journal of Concurrent Engineering: Research & Applications, Concurrent Engineering 2008, Vol.16, pp 139-147.
17. Xu, W., Cha J., Sobolewski, M., 2008, A Service-Oriented Collaborative Design Platform for Concurrent Engineering, Advanced Materials Research Vols. 44-46 (2008) pp 717-724. Available at: [http://sorcer.cs.ttu.edu/publications/papers/2008/0-87849-376-x\\_717.pdf](http://sorcer.cs.ttu.edu/publications/papers/2008/0-87849-376-x_717.pdf).
18. Sobolewski, M., 2008, Exertion Oriented Programming, IADIS, vol. 3 no. 1, pp. 86-109, ISBN: 1646-3692.
19. Berger M., Sobolewski, M. 2007, A Dual-time Vector Clock Based Synchronization Mechanism for Key-value Data in the SILENUS File System, IEEE Third International Workshop on Scheduling and Resource Management for Parallel and Distributed Systems (SRMPDS '07), Hsinchu, Taiwan, Vol.2, ISSN 1521-9097.
20. Sobolewski M., 2007, Federated Method Invocation with Exertions, IEEE International Conference on Principles of Information Technology and Applications (PITA'07), Wisla, Poland, October 15-17, 2007, ISSN 1896-7094, pp. 765-778.
21. Berger, M., Sobolewski, M. 2007, Lessons Learned from the SILENUS Federated File System, *Complex Systems Concurrent Engineering*, Loureiro, G. and L.Curran, R. (Eds.) 2007, Springer Verlag, ISBN: 978-1-84628-975-0, pp. 431-440.
22. Turner A., Sobolewski M. 2007, FICUS - A Federated Service-Oriented File Transfer Framework, *Complex Systems Concurrent Engineering*, Loureiro, G. and Curran, Richard (Eds.) 2007, Springer Verlag, ISBN: 978-1-84628-975-0, pp. 421-430.
23. Incelezan D., Sobolewski, M. 2007, Security Policy Management in Federated Computing Environments, 2nd Annual Symposium on Information Assurance, Albany, NY, June 6-7, 2007, pp. 64-70.
24. Berger, M., Sobolewski, M. 2007, Group-based Security in a Federated File System, 2nd Annual Symposium on Information Assurance, Albany NY, June 6-7, 2007, pp. 56-63.
25. Goel, S., Talya, S., Sobolewski, M. 2007, Service-based P2P Overlay Network for Collaborative Problem Solving, *Decision Support Systems*, Volume 43, Issue 2, March 2007, pp. 547-568.
26. Sobolewski, M., Kolonay, R. 2006, Federated Grid Computing with Interactive Service-oriented Programming, *International Journal of Concurrent Engineering: Research & Applications*, Vol. 14, No 1., pp. 55-66.
27. Sobolewski, M., Semushin I.V., *Intergrid Service-oriented Computing Environment, Information Technologies and Computing Systems, ITCS, Russian Academy of Sciences Journal, #2, 2006.*
28. Sobolewski, M., Semushin, I.V. 2005, Innovation Project of Intergrid Service Oriented Environment, *Proceedings of the 2005 International Workshop on Optimization Problems in Engineering*, ISBN: 5-88610-081-4, Vol. 2, pages 209-238 (in Russian).
29. Sobolewski, M., Semushin, I. V. 2005, *Intergrid Service-oriented Computing*

- Environment. In: A. A. Smagin and Yu. S. Nagornov (eds.), *Annals of the Ulyanovsk State University*, series "Information Technologies", No. 2, 2005, pp. 3-35 (in Russian).
30. Sobolewski, M., and Ghodous, P. (Eds.) 2005, *Next Generation Concurrent Engineering: Smart and Concurrent Integration of Product Data, Services, and Control Strategies*, Proceeding of the 12<sup>th</sup> Conference on Concurrent Engineering: Research and Applications, ISPE, Inc., ISBN 0-9768246-0-4, 2005.
  31. Berger, M., and Sobolewski, M. 2005, SILENUS – A Federated Service-oriented Approach to Distributed File Systems, *ibid.* pp. 89-96.
  32. Khurana, V., Berger, M., and Sobolewski, M. 2005, A Federated Grid Environment with Replication Services, *ibid.*, 97-103.
  33. Goel, S, Talya S., and Sobolewski, M. 2005, Preliminary Design Using Distributed Service-based Computing, *ibid.*, 113-120.
  34. Sobolewski, M., Cha, J. (Eds) 2004, *Concurrent Engineering: The Worldwide Engineering Grid*, Tsinghua Press and Springer Verlag, ISBN 7-302-08802-0.
  35. Kolonay, R., Sobolewski, M. 2004, Grid Interactive Service-oriented Programming Environment, *Concurrent Engineering: The Worldwide Engineering Grid*, Tsinghua Press and Springer Verlag, ISBN 7-302-08802-0, pp. 97-102.
  36. Soorianarayanan, S., Sobolewski, M. 2004, Monitoring Federated Services in CE, *Concurrent Engineering: The Worldwide Engineering Grid*, Tsinghua Press and Springer Verlag, ISBN 7-302-08802-0, pp. 89-95.
  37. Goel, S., Sobolewski, M. 2003, Trust and Security in Enterprise Grid Computing Environment, Proceedings of the IASTED Intl., Conference on Communication, Network, and Information Security, Dec 10-12, 2003, New York, NY.
  38. Sobolewski, M., Soorianarayanan, S., Malladi-Venkata, R-K. 2003, Service-Oriented File Sharing, Proceedings of the IASTED Intl., Conference on Communications, Internet, and Information technology, pp. 633-639, Nov 17-19, 2003, Scottsdale, AZ. ACTA Press.
  39. Lapinski, M., Sobolewski, M. 2003, Managing Notifications in a Federated S2S Environment, *International Journal of Concurrent Engineering: Research & Applications*, Vol. 11, pp. 17-25.
  40. Sobolewski, M. 2002. (Keynote) Federated P2P Services in CE Environments, *Advances in Concurrent Engineering*, A.A. Balkema Publishers, 2002, ISBN 90 5809 502 9, pp. 13-22.
  41. Kolonay, R.M., Sobolewski, M., Tappeta, R., Paradis, M., Burton, S. 2002, Network-Centric MAO Environment. The Society for Modeling and Simulation International, 2002 Westrn Multiconference, San Antonio, Texas.
  42. Sobolewski, M. 2002. FIPER: The Federated S2S Environment, *JavaOne, Sun's 2002 Worldwide Java Developer Conference*. Available at: <http://sorcersoft.org/publications/papers/2420.pdf>.
  43. Zhao, S., and Sobolewski, M. 2001, Context Model Sharing in the FIPER Environment, *Proc. of the 8th Int. Conference on Concurrent Engineering: Research and Applications*, Anaheim, CA.
  44. Lapinski, M. and Sobolewski, M. August 2001, Notification Manager in the FIPER Environment, *Proc. of the 8th Int. Conference on Concurrent Engineering: Research and Applications*, Anaheim, CA.
  45. Röhl, P.J., Kolonay, R.M., Irani, R.K., Sobolewski, M., Kao, K. A Federated Intelligent Product Environment, AIAA-2000-4902, 8<sup>th</sup> AIAA/USAF/NASA/ISSMO Symposium on Multidisciplinary Analysis and Optimization, Long Beach, CA, September 6-8, 2000.
  46. Sobolewski, M., Fox, M. (Eds) 1996. *Advances in Concurrent Engineering: CE96*, Technomic Publishing.

47. Sobolewski, M. 1996. Multi-Agent Knowledge-Based Environment for Concurrent Engineering Applications, *Concurrent Engineering: Research and Applications*, Technomic.
48. Sobolewski, M.W., Kenny, K.B., Sum, R.N., Bernstein, B.M., Erkes, J.W. 1996. CAMnet: The Role in Manufacturing Infrastructure, Proceedings of the 5th National Agility Conference, CD-ROM pp.1104-1117, Boston, MA, March 1996.
49. Erkes, J.W., Kenny, K.B., Lewis, J.W., Sarachan, B.D., Sobolewski, M.W., Sum, R.N. 1996. Implementing Shared manufacturing Services on the World-Wide Web, CACM, Feb. 1996.
50. Sobolewski, M. et al. 1996. CAMnet: The Role in Agile Manufacturing Infrastructure. *Proc. of the Fifth National Agility Conference*, Boston, March 5-7, 1996.
51. Paul, A.J., Sobolewski, M. (Eds) 1995. *Proc. of the Second Int. Conference on Concurrent Engineering: Research and Applications*, McLean, VA, Concurrent Technologies Corporation (CTC).
52. Sobolewski, M., Erkes, J. 1995. CAMnet: Architecture and Applications. *Proc. of the 2nd Int. Conference on Concurrent Engineering: Research and Applications* McLean, VA, Concurrent Technologies Corporation (CTC), pp: 627-634.
53. Lewis J.W., Sobolewski, M., and others. Electronic Design Notebooks in GE Aircraft Engines, Progress Report, January 1995.
54. Paul, A.J., Sobolewski, M. (Eds) 1994. *Proc. of the First Int. Conference on Concurrent Engineering: Research and Applications*, Pittsburgh, PA, Concurrent Technologies Corporation (CTC).
55. Jagannathan, V., Karinithi, R., Almasi, G., Sobolewski, M. 1994. Model-Based Information Access. *Int. Journal of Intelligent and Cooperative Information Systems*, Vol. 3, No. 2, pp. 107-127.
56. Karinithi, R., Jagannathan, V., Montan, V., Petro, J., Sobolewski, M., Raman, R., Trapp, G., Deng, S., Almasi, G., and Li, Xi. 1993. Modeling Enterprise Information and Enabling Access Using Information Sharing Server. K.H. Law (Ed.) *Engineering Data Management: Key to Success in a Global Market*, The American Society of Mechanical Engineers, pp. 251-258.
57. Sobolewski, M. 1993. Knowledge-Based System Integration in a Concurrent Engineering Environment. J. Komorowski and Z.W. Ras (Eds.) *Methodologies for Intelligent Systems, Lecture Notes in AI*, No 689, Berlin: Springer-Verlag, pp. 601-611.
58. Sobolewski, M., Dwivedi, S. 1993. A Graphical User Interface for Collaborative Work in a Concurrent Engineering Environment. *Proc. of the 9th CAD/CAM, Robotics and Factories of the Future '93*, St. Petersburg, Russia, Vol. 1, pp. 62-73.
59. Jagannathan, V., Karinti, R., Sobolewski, M., Almasi, G., Wu, Z. 1993. Model-Based Information Access. *Proc. of the 2nd IEEE Workshop on Enabling Technologies: Infrastructure for Collaborative Enterprises*, IEEE Computer Society Press, pp. 198-212.
60. Sobolewski, M., Dwivedi, S., Du, B., Dubey, S., Sharan, R., and Srivastava, S. 1992. Knowledge-Based Integration in Concurrent Engineering. Dwivedi, S. N. et al (Eds). *Concurrent Engineering Approach to Material Processing*. A Publication of The Minerals, Metals & Materials Society, pp.39-55.
61. Kulpa, Z. and Sobolewski, M. 1992. Knowledge-Directed Graphical and Natural Language Interface with a Knowledge-based Concurrent Engineering Environment. *Proc. of the 8th CAD/CAM, Robotics and Factories of the Future '92*, Metz, France, pp. 238-248.
62. Du, B., Rachakonda, S., Dwivedi, S., Karinithi, R., Sobolewski, M., Dax, R. 1992. Forging Process Design in a Concurrent Engineering Environment. J.P. Hager (Ed.) *Proc. of EPD Congress 1992*, A Publication of The Minerals, Metals & Materials Society, pp. 531-545.

63. Sobolewski, M. 1991. Percept Conceptualizations and Their Knowledge Representation Schemes. Z.W. Ras and M. Zemankova (Eds.) *Methodologies for Intelligent Systems, Lecture Notes in AI 542*, Berlin: Springer-Verlag, pp. 236-245.
64. Sobolewski, M. 1991. Integration of Declarative and Procedural Knowledge in Engineering Applications. *Expert Systems World Congress Proceedings*, Pergamonn Press: New York, Vol. 3, pp. 1816-1823.
65. Sobolewski, M. 1992. Object-Oriented Knowledge Bases in Engineering Applications. *Proc. of the Sixth Int. Conference on CAD/CAM, Robotics and Factories of the Future'91*, London, UK, Soutbank Press, Vol. 1, pp. 470-475.
66. Sobolewski, M. 1991. DICETalk: An Object-Oriented Knowledge-Based Engineering Environment. *CAD/CAM, Robotics and Factories of the Future'90*, Vol. 1: *Concurrent Engineering*, Berlin: Springer-Verlag, pp. 117-122.
67. Dwivedi, S.N., Sobolewski, M. 1991. Concurrent Engineering - An Introduction. *CAD/CAM, Robotics and Factories of the Future'90*, Vol. 1: *Concurrent Engineering*, Berlin: Springer-Verlag, pp. 3-16.
68. Kulpa, Z., Sobolewski, M., Dwivedi, S.N. 1991. Graphical User Interface with Object-Oriented Knowledge-Based Engineering Environment. *CAD/CAM, Robotics and Factories of the Future'90*, Vol. 1: *Concurrent Engineering*, Berlin: Springer-Verlag, 154159.
69. Sobolewski, M. 1990. Percept Knowledge and Concurrency, *Proc. Second National Symposium on Concurrent Engineering*, CERC WVU, pp. 111-137.
70. Sobolewski, M. 1989. *EXPERTALK: Podrecznik uzytkownika i programisty* (Expertalk: User's and Programmer's Manual, in Polish), JI-W Technowiedza Warsaw.
71. Sobolewski, M. 1989. EXPERTALK: An Object-oriented Knowledge-based System, In: I. Plander (ed.), *Artificial Intelligence and Information-Control Systems of Robots*, Elsevier (North-Holland), Amsterdam.
72. Sobolewski, M. 1989. EXPERTALK: An Object-oriented Knowledge-based System, *Wissenschaftliche Zeitschrift der Technischen Hochschule Ilmenau*, Heft 6, 1989, pp. 75-86.
73. Sobolewski, M. 1988. Percept Calculus and Knowledge Representation, *Wissenschaftliche Zeitschrift der Technischen Hochschule Ilmenau*, Heft 1, pp. 55-68.
74. Sobolewski, M. 1987. Percept Knowledge-base Systems, In: I. Plander (ed.), *Artificial Intelligence and Information-Control Systems of Robots*, Elsevier (North-Holland), Amsterdam, pp. 107-116.
75. Sobolewski, M. 1989. Perceptowy system opisu wiedzy (Percept System of Knowledge Representation, in Polish). *Proc. School on Data Bases'85*, Karapcz, Poland.
76. Sobolewski, M., Kulpa, Z. 1984. From Sentences to Attribute Networks, In: I. Plander (ed.), *Artificial Intelligence and Information-Control Systems of Robots*, Elsevier (North-Holland), Amsterdam, pp. 345-348.
77. Sobolewski, M. 1984. Structured Object Representation in Many-sorted Attribute Systems, *Proc. First IFAC Symp. on Artificial Intelligence*, Leningrad, USSR, Pergamon Press Oxford.
78. Sobolewski, M. 1983. Systemy ekspertowe w biomedycynie (Expert Systems in Biomedicine, in Polish), *Mat. VI KKN-Sz Biocybernetyka i Inzynieria Biomedyczna*, Warsaw, Poland.
79. Sobolewski, M. 1978. Klasy jezykow i modeli dla rozpoznawania obrazow (Classes of Languages and Models for Pattern Recognition, in Polish), Ph.D. Thesis, Institute of Computer Science PAS, Warsaw, Poland.
80. Sobolewski, M. and Kulpa, Z. 1978. Picture Processing and Recognition Using the CPO-2/K202 System (in Russian), *Proc. Intl. Conf. Bionics'78*, Leningrad, USSR.
81. Sobolewski, M. 1976. O Pewnej Metodzie Rozpoznawania Znakow

- Maszynopisowych (On a Method of Character Recognition, in Polish), *Archiwum Automatyki i Telemekhaniki*, tom XXI zeszyt 1, pp. 253-262.
82. Sobolewski, M. 1976. Classification systems semantics in terms of fuzzy sets, *Proc. Third European Meeting on Cybernetics and Systems Research*, Vienna, Austria.
  83. Sobolewski, M. 1975. Tree-structured Pattern Recognition Systems, *Proc. 19th Int. Symp. on Information Processing*, Bled, Yugoslavia.
  84. Sobolewski, M. 1975. Rozmyte zbiory w zastosowaniu do semantyki systemow klasyfikacyjnych (Fuzzy Sets in Application to Semantics of Classification Systems, in Polish), *Mat. II Symp. nt. Metody Heurysty*, Warsaw, Poland, pp. 7.1-7.18.
  85. Sobolewski, M. 1974. Przetwarzanie obrazow w terminach rozmytych zbiorow (Picture Processing in Terms of Fuzzy Sets), *Mat. Konf. Komputerowe systemy przetwarzania danych doswiadczalnych*, Kazimierz Dolny, Poland.
  86. Sobolewski, M. 1974. Język opisu obrazow w srodowisku o strukturze siatkowej (Pattern Description Language in Lattice-Structured Environment, in Polish). *Mat. VI KKA*, t.1, Poznan, Poland, pp. 669-685.
  87. Sobolewski, M. 1973. O rozpoznawaniu znakow maszynopisowych, (On Character Recognition, in Polish) *Mat. Konf. Metody bezposredniego wprowadzania i wyprowadzania informacji tekstowej i obrazowej w systemach informacyjnych*. Jablonna, Poland, pp. II.1-II.13.

## OTHER PAPERS

More than forty papers and reports in Polish not listed here, some in English as follows:

88. Sobolewski, M. Graphical User Interface for Collaborative Work, *CERC Reports, CERC-TR-TN-92-002*, 1992.
89. Chung, S., Sneckenberger, J.E., Sobolewski M., Knowledge-Based Mechanical Design Using Substructuring in a Concurrent Engineering Environment, *CERC Reports, CERC-TR-RN-92-020*, 1992.
90. Sobolewski, M. DICEtalk Knowledge-Based System, Tutorial and Manual, *CERC WVU Reports*, 1990.
91. Sobolewski, M. Integration Levels in Concurrent Engineering, *CERC WVU Reports*, 1990.
92. Sobolewski, M., Percept Knowledge Representation Schemes, *CERC WVU Reports, E-ACHIVE-018-90*, 1990.
93. Sobolewski M. Percept Languages for Knowledge Description, *CERC WVU Reports, E-ACHIVE-047-90*, 1990.
94. Sobolewski, M. An Intelligent Database in the DICE Architecture and a DICEtalk Knowledge-based System, *CERC WVU Reports, I-ARCHIVE-014-90*, 1990.
95. Sobolewski, M. Pro-Con Fuzzy Reasoning, *ICS PAS Reports No.664*, Institute of Computer Science Polish Academy of Sciences, 1989.
96. Sobolewski, M., Percept Knowledge Description and Representation, *ICS PAS Reports, No.663*, Institute of Computer Science Polish Academy of Sciences, 1989.
97. Sobolewski, M. Graphical User Interface for Knowledge-based Systems, *ICS PAS Reports, No.670*, Institute of Computer Science Polish Academy of Sciences, 1989 (in Polish).
98. Sobolewski, M. Percept Knowledge and its Logical Representation. *EPFL MA Report No.60*, Lausanne, Switzerland, 1987.
99. Jaegerman, M., Marek, W., Sobolewski, M. Information Storage and Retrieval Systems - Mathematical Foundations. Part III. Tree-structured Attribute Systems, *ICS PAS Reports, No.214*, Institute of Computer Science Polish Academy of Sciences, 1975.

