Artificial Immune Systems: A Bibliography

Important Note: The field of Artificial Immune Systems is too young to be well defined, and its scope and limitations are still unknown. Some of the references are of synthetic approaches to understand and simulate the immune system, and others that develop computational methodologies inspired by the immune system to solve real-world problems. While this bibliography has been compiled with the utmost care and we tried to make it a complete review of the references in the field, there may be errors in the references we cite and we may have left out important citations. In either case, we will appreciate any help you give us to update the future versions. All comments, suggestions and additions are welcome to improve this bibliography. Please send your contributions to Dipankar Dasgupta (dasgupta@memphis.edu). The authors are also grateful to the researchers who helped us in our literature collection by either sending copies of citations or copies of documents. The authors take no responsibility, however, for any errors, missing information, the contents and quality of the references, nor for the usefulness and/or the consequences of applying the models or methodologies.

Edited Volumes:

Book Section:

Ph.D Dissertations:


**Links to AIS related web sites (access date June 27, 2003):**

- **People**
  - D. Dasgupta: [http://www.msci.memphis.edu/~dasgupta](http://www.msci.memphis.edu/~dasgupta)
  - P. D'haeseleer: [http://www.cs.unm.edu/~patrik](http://www.cs.unm.edu/~patrik)
  - S. Forrest: [http://www.cs.unm.edu/~forrest](http://www.cs.unm.edu/~forrest)
  - P. Hajela: [http://www.rpi.edu/~hajela](http://www.rpi.edu/~hajela)
  - E. Hart: [http://www.dcs.napier.ac.uk/~emmah/](http://www.dcs.napier.ac.uk/~emmah/)
  - S. A. Hofmeyr: [http://www.cs.unm.edu/~steveah](http://www.cs.unm.edu/~steveah)
  - J. Kim: [http://www.cs.ucl.ac.uk/staff/J.Kim](http://www.cs.ucl.ac.uk/staff/J.Kim)
  - N. I. Nikolaev: [http://homepages.gold.ac.uk/nikolaev/](http://homepages.gold.ac.uk/nikolaev/)
  - F. Nino: [http://dis.unal.edu.co/~lfnino](http://dis.unal.edu.co/~lfnino)
  - L. Nunes de Castro: [http://www.dca.fee.unicamp.br/~lnunes](http://www.dca.fee.unicamp.br/~lnunes)
  - D. J. Smith: [http://www.santafe.edu/~dsmith](http://www.santafe.edu/~dsmith)
  - S. Thayer: [http://www.ri.cmu.edu/people/thayer_scott.html](http://www.ri.cmu.edu/people/thayer_scott.html)
  - J. Timmis: [http://www.cs.ukc.ac.uk/people/staff/jt6](http://www.cs.ukc.ac.uk/people/staff/jt6)
  - F. J. Von Zuben: [http://www.dca.fee.unicamp.br/~vonzuben](http://www.dca.fee.unicamp.br/~vonzuben)
  - Y. Watanabe: [http://web.sfc.keio.ac.jp/~t03532yw](http://web.sfc.keio.ac.jp/~t03532yw)

- **Organizations**
  - CytoCom Network: [http://www.csc.liv.ac.uk/~cytocom/index.html](http://www.csc.liv.ac.uk/~cytocom/index.html)
  - Dept of Electronic, University of York: [http://www.elec.york.ac.uk/bio/welcome.html](http://www.elec.york.ac.uk/bio/welcome.html)
  - ISYS Project: [http://www.aber.ac.uk/~dcswww/ISYS](http://www.aber.ac.uk/~dcswww/ISYS)
  - Primary Response: [www.sanasecurity.com](http://www.sanasecurity.com)
• **Events**

  • **2003 Events**

    - Special Session on [Artificial Immune Systems](http://cec2001.kaist.ac.kr/) at the Congress on Evolutionary Computation (CEC), December 8-12, 2003, Canberra, Australia.
    - Special Session on Immunity-Based Systems at [Seventh International Conference on Knowledge-Based Intelligent Information & Engineering Systems](http://www.kesinternational.org/kes2003), September 3-5, 2003, University of Oxford, United Kingdom.
    - Second International Conference on Artificial Immune Systems (ICARIS), September 1-3, 2003, Napier University, Edinburgh, UK.

  • **Previous Events**

    - Fifth International Conference on Cellular Automata for Research and Industry, to be held in Switzerland on October 9th-11th. This conference invites papers on immune systems as well. [http://cui.unige.ch/acri2002/](http://cui.unige.ch/acri2002/)
    - IEEE 2002 Systems, Man and Cybernetics conference to be held at Tunisia on October 6th-9th. [http://smc02.ec-lille.fr/home.html](http://smc02.ec-lille.fr/home.html)
    - KES2002 Special Session on Immunity-Based Systems held as part of 6th International Conference on Knowledge-Based Intelligent Information Engineering Systems to be held at Podere d'Ombriano, Crema, Italy on 16th-18th September 2002. [http://www.ph.tn.tudelft.nl/PRInfo/confmail/sep02/msg00007.html](http://www.ph.tn.tudelft.nl/PRInfo/confmail/sep02/msg00007.html)
    - Special track on Artificial Immune Systems held at the 2002 Congress on Evolutionary Computation as part of the 2002 IEEE World Congress on Computational Intelligence, Honolulu, HI, May 12-17, 2002. [www.wcci2992.org](http://www.wcci2992.org)
    - IEEE International Conference on Systems, Man, and Cybernetics ’97, Special Track on Artificial Immune systems: [http://www.msci.memphis.edu/~dasgupta/accepted-papers.html](http://www.msci.memphis.edu/~dasgupta/accepted-papers.html)
Journal Articles, Conference papers and Technical Reports:

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77. A. M. Costa, P. A. Vargas, F. J. Von Zuben and P. M. Franca. Makespan Minimization on Parallel Processors: An Immune-Based Approach. In the proceedings of the special sessions on artificial immune systems in Congress on Evolutionary Computation, IEEE World Congress on Computational Intelligence, Honolulu, Hawaii, May 2002
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83. D. Dasgupta and N. S. Majumdar. Anomaly Detection in Multidimensional Data using Negative Selection Algorithm. In the proceedings of the special sessions on artificial immune systems in Congress on Evolutionary Computation, IEEE World Congress on Computational Intelligence, Honolulu, Hawaii, May 2002.

www.cs.memphis.edu/~dasgupta/AIS/AIS-bib.pdf
111. L. N. De Castro and F. J. Von Zuben (2001c). An Immunological Approach to Initialize Feed forward Neural Network Weights. Accepted for publication at ICANNGA’01 (International Conference on Artificial Neural Networks and Genetic Algorithms).
112. L. N. De Castro and F. J. Von Zuben (2001d). A Pruning Self-Organizing Algorithm to Select Centers of Radial Basis Function Neural Networks. Published at ICANNGA’01 (International Conference on Artificial Neural Networks and Genetic Algorithms).


130. V. Detours, B. Sulzer and A. S. Perelson. Size and connectivity of the idiotypic network are independent of the discreteness of the affinity distribution. J. Theoret. Biol., 183:409-416,


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262. Kim & Bentley. Immune Memory in the Dynamic Clonal Selection Algorithm.1st International Conference on Artificial Immune Systems (ICARIS-2002), University of Kent at Canterbury,


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432. L. Wenjian, C. Xianbin and W. Xufa. An Immune Genetic Algorithm Based on Immune Regulation. In the proceedings of the special sessions on artificial immune systems in Congress on Evolutionary Computation, IEEE World Congress on Computational Intelligence, Honolulu, Hawaii, May 2002.


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