INTERNATIONAL WORKSHOP ON NATURAL AND ARTIFICIAL IMMUNE SYSTEMS

NAIS05

Vietri sul mare June 9ᵗʰ-10ᵗʰ, 2005

The Italian Society for Neural Networks announces a three-day workshop on Natural and Artificial Immune Systems, to be held in Vietri sul Mare (Salerno), Italy, June 9ᵗʰ-10ᵗʰ, 2005 (http://siren.dsi.unimi.it/conferences/IMMUNE05/html/index.html).

The workshop aims at catalyzing the interaction between modelers (computer scientists, mathematicians and physicists), immunologists and biologists interested in discussing the information processing mechanisms emerging in the functionalities of either natural or artificial immune systems.

The leading idea motivating this event is the attention to the various forms of "intelligent thinking" underlying the many attack/defense/adaptation strategies discovered in natural systems, such as tumor and virus escape mechanisms of animals and humans, or implemented in artificial systems, like the everyday virus attacks to the universe of computer systems.

This approach may reap several basic benefits of the original cybernetics paradigm:
  i. the emergence of the mind from chemical-physical reactions that can be studied and simulated,
  ii. the use of natural processing mechanisms for solving artificial problems, and the cross-fertilization of the natural and artificial research environments,
  iii. the adoption of comprehensive immune system models in the development of new therapeutic approaches.

Possible topics include, but are not limited to:
- simulation of immune systems
- model testing
- game theory
- biological learning
- immersive learning
- network security
- artificial virus attacks
- comparisons between Artificial Immune Systems and other biologically-inspired paradigms
- theory and applications of Immunological Computing
- Immunocomputing

Invited speakers:
- Franco Celada, University of Genova, Italy
- Vincenzo Cutello, University of Catania, Italy
- Dipankar Dasgupta, University of Memphis, USA
- Doheon Lee, IBM-KAIST Bio-Computing Research Center, Korea
- John Timmis, Universityh of Kent, UK

Proceedings: The conference will feature both introductory tutorials and original refereed papers, to be published by an international publisher.

Chairs:
- Bruno Apolloni, University of Milano, Italy
- Alberto Clivio, University of Milano, Italy
- Vincenzo Cutello, University of Catania, Italy
- Giuseppe Nicosia, University of Catania, Italy

Program Committee:
- Franco Celada, University of Genova, Italy
- Dipankar Dasgupta, University of Memphis, USA
- Marco Gori, University of Siena, Italy
- Doheon Lee, IBM-KAIST Bio-Computing Research Center, Korea
- Piero Mussio, University of Milano, Italy
- Anastasia Pagnoni, Unversity of Milano, Italy
- John Timmis, University of Kent, UK
- Henry Linger, Monash University, Melbourne, Australia

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