

Preface

These proceedings contain the papers that were presented at the 6th International Conference on the Theory and Practice of Natural Computing (TPNC 2017), held in Prague, Czech Republic, during December 18–20, 2017.

The scope of TPNC is rather broad, including:

- Theoretical contributions to: amorphous computing, ant colonies, artificial chemistry, artificial immune systems, artificial life, bacterial foraging, cellular automata, chaos computing, collision-based computing, complex adaptive systems, computing with DNA, computing with words and perceptions, developmental systems, evolutionary computing, fractal geometry, fuzzy logic, gene assembly in ciliates, granular computing, intelligent systems, in vivo computing, membrane computing, nanocomputing, neural computing, optical computing, physarum machines, quantum computing, quantum information, reaction-diffusion systems, rough sets, self-organizing systems, swarm intelligence, synthetic biology
- Applications of natural computing to: algorithmics, bioinformatics, control, cryptography, design, economics, graphics, hardware, human–computer interaction, knowledge discovery, learning, logistics, medicine, natural language processing, optimization, pattern recognition, planning and scheduling, programming, robotics, telecommunications, Web intelligence

TPNC 2017 received 39 submissions. Papers were reviewed by three Program Committee members. There were also a few external reviewers consulted. After a thorough and vivid discussion phase, the committee decided to accept 23 papers (which represents an acceptance rate of about 59%). The conference program included three invited talks and some poster presentations of work-in-progress as well.

The excellent facilities provided by the EasyChair conference management system allowed us to deal with the submissions successfully and handle the preparation of these proceedings in time.

We would like to thank all invited speakers and authors for their contributions, the Program Committee and the external reviewers for their cooperation, and Springer for its very professional publishing work.

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