

# The Tenth International Conference on Computational Logics, Algebras, Programming, Tools, and Benchmarking COMPUTATION TOOLS 2019

May 5 - 9, 2019 - Venice, Italy

http://www.iaria.org/conferences2019/COMPUTATIONTOOLS19.html

# Important deadlines:

Submission (full paper) Notification Registration Camera ready December 22, 2018 February 24, 2019 March 9, 2019 March 20, 2019

#### Tracks:

#### Trends on computation

Assertion-based analysis; Conditional transformation systems; Generalized learned constraints; Constraint propagation; Stable-unstable semantics; Abstract compilation; Semantic code browsing; Pointer analysis; Minimal entailment; Infinitary formulas; Static profiling of parametric resource usage; Rewriting optimization statements; Algebraic effect handlers; Non-ground rules; Resource-based answer set semantics; Local domain symmetry; Knowledge patterns; Knowledge representation; Grounded fixpoints; Supersafe rules; Qualitative spatio-temporal reasoning; Reasoning about truthfulness; Cause-effect relations; Higher-order logics; Models expansion; Optimal stable models; Intelligent instantiations; Answer set programming; Non-monotonic cause-effect relations; Paraconsistency; Active integrity constraints

### Logics

Reasoning logics; Fuzzy logics; Semantic logics; Temporal logics; Emotion logics; Ambiant logics; Modal logics; Description logics; Computational logics and constraints; Quantum computational logics; Executable computational logics; Monadic computational logics; Many-valued computational logics; Computability logic

## **Algebras**

Computational algebras; K-theories, C\*-algebras, Index theory; Algebraic and topological K-theory; Geometric group theory and group C\*-algebras; Noncommutative geometry and topology; Pseudodifferential operators on singular manifolds; Topological invariants of non-simply connected manifolds; Deformation quantization; Lambda calculus; Relation algebra; Algebras for symbolic computation; Constructive algebras

## **Advanced computation techniques**

Machine learning; Fuzzy theory/computation/logic; (Artificial) neuronal networks; Distributed artificial intelligence; Genetic algorithms; Analytic tableaux; Autonomous agent-based techniques; Knowledge-based systems and automated reasoning; Logical issues in knowledge representation /non-monotonic reasoning/belief; Dempster-Shafer theory; Concurrent computation and planning; Deduction and reasoning

## Specialized programming languages

Logic programming; Specialized computation languages; Real-time computation languages; Embedded-computing languages; Programming semantics; Content-driven programming; Multimedia-oriented programming; Context-driven programming; Service-oriented programming; Pattern-oriented programming; Regenerative programming; Progressive programming; Sensing-oriented programming; Mobile-ubiquity-oriented computing; Compilation issues

#### Tools for distributed computation

Platforms for distributed computing; Specification and verification of programs and systems; Techniques for cloud computing; On-request resource allocation mechanisms; Security and privacy techniques; Computational benchmarking metrics, criteria and methodologies; Distributed debug and on-fly repairing; Inference of schemas, integrity constraints in computational applications; Real-world applications, experiments, projects