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**The Twelfth International Conference on Computational
Logics, Algebras, Programming, Tools, and Benchmarking
COMPUTATION TOOLS 2021**

April 18 - 21, 2021 - Porto, Portugal

<http://www.aria.org/conferences2021/COMPUTATIONTOOLS21.html>

Important deadlines:

Submission (full paper)	February 8, 2021
Notification	February 28, 2021
Registration	March 11, 2021
Camera ready	March 16, 2021

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; Ambient logics; Modal logics; Description logics; Computational tree logic; 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