



The 18th International Workshop on Principles of Diagnosis

May 29-31, 2007 • Nashville, TN, USA

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Call For Papers

The International Workshop on Principles of Diagnosis is an annual event that started in 1989 rooted in the Artificial Intelligence (AI) community. Its current focus is broader covering a variety of theories, principles, and computational techniques for diagnosis, monitoring, testing, reconfiguration, fault-adaptive control, and repair of complex systems. Application of these theories, principles, and techniques to industry-related disciplines and other domains is amongst the important topics of the workshop.

DX is a lively forum that has traditionally adopted a single-track program and limited the number of participants in order to promote detailed technical exchange and debate. We welcome papers in a variety of areas related but not limited to:

- Formal theories and computational methods for diagnosis, monitoring, testing, repair and therapy, reconfiguration, fault tolerance, diagnosability analysis and related topics.
- Modeling for diagnosis including symbolic, numeric, discrete-event, continuous, hybrid, probabilistic, functional, behavioral, qualitative, abstractions and approximation methods.
- Computational issues addressing controlling combinatorial explosion, use of structural and hierarchical knowledge, focusing strategies, resource-bounded reasoning, and related topics.
- Diagnosis process including strategies for measurement selection, sensor placement, test actions design, active testing, embedded diagnosis systems, preventive diagnosis, fault tolerance strategies, distributed diagnosis.
- Bridge between DX and other areas: FDI control-based techniques, statistical and probabilistic methods, design, model checking, machine learning, non-monotonic reasoning, planning, execution, real-time languages, software verification and validation, debugging, and hardware testing.
- Real-world applications and integrated systems in a wide range of fields including transport systems, space and aeronautics, process industry, medical, and bioinformatics. Success (or failure) stories are especially welcome.

Location

The workshop will be held at the Gaylord Opryland Resort and Convention Center in Nashville. Gaylord Opryland is recognized around the world for its extraordinary service, luxurious accommodations and first-class entertainment. Nashville, Music City, USA, typically enjoys a mild and pleasant climate in May. The city boasts of over 40 different attractions, from Civil War battle sites to priceless Picasso paintings to a full size replica of the Parthenon. There truly is something for everyone in Nashville - take a tour of an antebellum home rich in history, browse the country music archives or take in a dinner at a comedy club.

Papers Submission

Accepted papers qualify as regular or poster papers. All accepted DX papers will be published in the Workshop notes and CD ROM. The workshop notes and CD ROM will be distributed to participants only so that resubmission of papers to conferences or journals is permitted. Final papers must be submitted in AAAI format (see <http://www.aaai.org/Publications/Author/author.php>) and must not exceed 8 pages length. For additional information contact dx07 at isis dot Vanderbilt dot edu or check the conference web site <http://www.isis.vanderbilt.edu/dx07>.

Important Dates

- Full paper submission: February 16, 2007
- Author notification: April 2, 2007
- Final manuscript due: May 4, 2007
- Advance registration deadline: May 4, 2007

