Satellite workshops and tutorials

- RTN - International Workshop on Real-Time Networks
- WCET - International Workshop on Worst-Case Execution Time Analysis
- OSPERT - International Workshop on Operating System Platforms for Embedded Real-Time Applications
- Tutorial - MARTE: A New Standard for Modeling and Analysis of Real-Time and Embedded Systems

July 4, Wednesday

8:00-8:45: Registration

8:45-9:00: Opening

9:00-11:00: Session 1: Scheduling and schedulability Analysis

Chair: James H. Anderson

EDZL scheduling analysis
Michele Cirinei and Theodore P. Baker

The Space of EDF Feasible Deadlines
Enrico Bini and Giorgio Buttazzo

A Delay Composition Theorem for Real-Time Pipelines
Praveen Jayachandran and Tarek Abdelzaher

New Schedulability Conditions for Real-Time Multiframe Tasks
Wan-Chen Lu, Kwei-Jay Lin, Hsin-Wen Wei and Wei-Kuan Shih

11:00-12:00: Break

12:00-13:00: Keynote Talk

Chair: Tullio Vardanega

From Model-Driven Development to Model-Driven Engineering
Bran Selic, IBM Canada
13:00-14:30: Lunch

14:30-16:00: Work in Progress Session (WiP)
   Chair: Samarjit Chakraborty

16:00-17:00: WiP Poster session + Break

17:00-18:30: Session 2: Multiprocessor scheduling
   Chair: Alan Burns
   The Global Feasibility and Schedulability of General Task Models on Multiprocessor Platforms
   Nathan Fisher and Sanjoy Baruah
   Integrating Hard/Soft Real-Time Tasks and Best-Effort Jobs on Multiprocessors
   Bjoern Brandenburg and James Anderson
   Tardiness Bounds for FIFO Scheduling on Multiprocessors
   Hennadiy Leontyev and James Anderson

19:00: Reception
   The reception will take place in the garden of the Scuola Superiore Sant'Anna, just outside the conference room.

20:00: Visiting the Leaning Tower
   After the Reception, there will be a visit of the Leaning Tower, which is just at 5 minutes of walk from the Scuola Sant'Anna. The visit takes about 30 minutes and will be organized in groups of 25 people, starting at 20:00.

July 5, Thursday

9:00-11:00: Session 3: Control and energy management
   Chair: Eduardo Tovar
   Statistical QoS Guarantee and Energy-efficiency in Web Server Clusters
   Luciano Bertini, Julius Leite and Daniel Mossé
   Dynamic Speed and Sensor Rate Adjustment for Mobile Robotic Systems
   Ala' Qadi, Steve Goddard, Jiangyang Huang and Shane Farritor
   On Controllability and Feasibility of Utilization Control in Distributed Real-Time Systems
   Xiaorui Wang, Yingming Chen, Chenyang Lu and Xenofon Koutsoukos
   Thermal Faults Modeling using a RC model with an Application to Web Farms
   Alexandre Ferreira, Daniel Mossé and Jae Oh

11:00-11:30: Break
11:30-12:30: **Keynote talk**  
*Chair: Hermann Härtig*  
Real-time Requirements of Media Control Applications  
Francisco Gómez-Molinero, Visual Tools, Spain

12:30-14:00: **Lunch**

14:00-15:30: **Session 4: Wireless network scheduling**  
*Chair: Tarek Abdelzaher*  
A Time Division Beacon Scheduling Mechanism for IEEE 802.15.4/Zigbee Cluster-Tree Wireless Sensor Networks  
Anis Koubâa, André Cunhâ and Mário Alves  
On Scheduling and Real-Time Capacity of Hexagonal Wireless Sensor Networks  
Shashi Prabh and Tarek Abdelzaher  
An Integrated Scheduling and Retransmission Proposal for Firm Real-time Traffic in IEEE 802.11e  
Douglas Dími Demarch and Leandro Buss Becker

15:30-16:00: **Break**

16:00-17:30: **Session 5: Timing analysis**  
*Chair: Theodore P. Baker*  
Cache-Aware Timing Analysis of Streaming Applications  
Samarjit Chakraborty, Tulika Mitra, Abhik Roychoudhury and Lothar Thiele  
Predictable paging in real-time systems: a compiler approach  
Isabelle Puaut and Damien Hardy  
WCET-Directed Dynamic Scratchpad Memory Allocation of Data.  
Jean-François Deverge and Isabelle Puaut

18:30: **Guided Tour to Piazza Dei Miracoli**  
Guided tour to Piazza dei Miracoli, visiting the Duomo, the Battistero, and the Churchyard.  
The visit takes about one hour.

20:00: **Banquet**  
A bus will leave at 20:00 from Piazza Manin (just across the arch near the Battistero) to Ristorante “Le Arcate”, located in the countryside of the Province of Pisa, inside the old walls of Villa Poschi.

In this year's edition, there will be a honorific Best Paper Award, and three Best Student Paper Awards. The first Best Student Paper Award is sponsored by Springer with USD 500. Evidence is sponsoring all three Best Student Paper Awards with a FLEX development board for each. In addition, a selection of best papers will be invited for a special issue of an international journal.
July 6, Friday

9:00-10:30: **Session 6: Quality of service management**
*Chair: Marco Caccamo*

- Co-Scheduling Variable Execution Time Requirement Real-time Tasks and Non Real-Time Tasks
  - Abhishek Singh and Kevin Jeffay
- Memory Resource Management for Real-Time Systems
  - Audrey Marchand, Patricia Balbastre, Ismael Ripoll, Miguel Masmano and Alfons Crespo
- Probabilistic Admission Control to Govern Real-Time Systems under Overload
  - Claude-Joachim Hamann, Michael Roitzsch, Lars Reuther, Jean Wolter and Hermann Härtig

10:30-11:00: **Break**

11:00-11:30: **Keynote talk**
*Chair: Michael González Harbour*

- Research Opportunities in the IST Thematic Priority of the 7th Framework Program
  - Mercè Griera i Fisa, European Commission

11:30-13:00: **Session 7: Scheduling in networks and multicore platforms**
*Chair: Jean-Dominique Decotignie*

- On Dominating Set Allocation Policies in Real-Time Wide-Area Distributed Systems
  - Chengdu Huang, Tarek Abdelzaher and Xue Liu
- Composition Techniques for Tree Communication Schedules
  - Madhukar Anand, Sebastian Fischmeister and Insup Lee
- A Hybrid Real-Time Scheduling Approach for Large-Scale Multicore Platforms
  - John Calandrino, James Anderson and Dan Baumberger

13:00-14:30: **Lunch**

14:30-16:30: **Session 8: Fixed-priority scheduling**
*Chair: Pascal Richard*

- Supporting Deliberative Real-Time AI Systems: A Fixed Priority Scheduling Approach
  - Yanching Chu and Alan Burns
- Worst-case response time analysis of real-time tasks under fixed-priority scheduling with deferred preemption revisited
  - Reinder J. Bril, Johan J. Lukkien and Wim F.J. Verhaegh
- Extending Rate Monotonic Analysis with Exact Cost of Preemptions for Hard Real-Time Systems
  - Patrick Meumeu Yomsi and Yves Sorel
- Casting Preemptive Time Petri Nets in the Development Life Cycle of Real-Time Software
  - Laura Carnevali, Luigi Sassoli and Enrico Vicario

16:30: **Concluding remarks**