

*Conference Program  
and  
Practical Information*

**Wednesday, 10 September morning**

**8:45 – 9:00**      **Welcome and Opening**

**9:00 – 10:00**      **Invited Talk by *Henrique Madeira* (Un. Coimbra)  
Quantitative safety assessment: experiments and field measurements**

**10:00 – 11:00**      **Session 1 – Fault Injection Techniques  
Session chair: *Wolfgang Ehrenberger***

- A Simulated Fault Injection Framework for Time-Triggered Safety-Critical Embedded Systems  
*Iban Ayestaran, Carlos F. Nicolas, Jon Perez, Asier Larrucea, Peter Puschner*
- Rapid Fault-Space Exploration by Evolutionary Pruning  
*Horst Schirmeier, Christoph Borchert, Olaf Spinczyk*

**11:00 – 11:30**      **Coffee break**

**11:30 – 13:00**      **QEST Session – Applications, theory, and tools**

- A Scalable Approach to the Assessment of Storm Impact in Distributed Automation Power Grids  
*Alberto Avritzer, Laura Carnevali, Lucia Happe, Anne Koziolk, Daniel Sadoc Menasché, Marco Paolieri and Sindhu Suresh*
- Compositionality Results for Quantitative Information Flow  
*Yusuke Kawamoto, Konstantinos Chatzikokolakis and Catuscia Palamidessi*
- CyberSAGE: A Tool for Automatic Security Assessment of Cyber-Physical Systems (tool paper)  
*An Hoa Vu, Nils Ole Tippenhauer, Binbin Chen, David M. Nicol and Zbigniew Kalbarczyk*

**13:00 – 14:30**      **Lunch**

**Wednesday, 10 September afternoon**

- 14:30 – 15:30**      **Joint program with QEST**  
**Invited Talk by *Samuel Kounev* (Universität Würzburg)**  
**Quantitative Evaluation of Service Dependability in Shared Execution Environments**
- 15:30 – 16:30**      **QEST Session – Probabilistic Model Checking**
- Symbolic Approximation of the Bounded Reachability Probability in Large Markov Chains  
*Markus N. Rabe, Christoph M. Wintersteiger, Hillel Kugler, Boyan Yordanov and Youssef Hamadi*
  - Accelerating Parametric Probabilistic Verification  
*Nils Jansen, Florian Corzilius, Matthias Volk, Ralf Wimmer, Erika Abraham, Joost-Pieter Katoen and Bernd Becker*
- 16:30 – 17:00**      **Coffee break**
- 17:00 – 18:00**      **Session 2 – Verification & Validation Techniques**  
**Session chair: *Nobuyasu Kanekawa***
- Safety Validation of Sense and Avoid Algorithms using Simulation and Evolutionary Search  
*Xueyi Zou, Rob Alexander, John McDermid*
  - Proving the Absence of Stack Overflows  
*Daniel Kästner, Christian Ferdinand*

**Wednesday, 10 September evening Reception**

- 19:30**      HARRY'S BAR – Lungarno Vespucci, 22/R Firenze  
[www.harrysbarfirenze.it](http://www.harrysbarfirenze.it)

**Thursday, 11 September morning**

**9:00 – 10:00**      **Invited Talk by *Philippe Quere* (Renault)**  
**Key Challenges for the Automotive Industry and Renault**

**10:00 – 11:00**      **Session 3 – Automotive Systems**  
**Session chair: *Barbara Gallina***

- Systematic Derivation of Functional Safety Requirements for Automotive Systems  
*Kristian Beckers, Isabelle Cote, Thomas Frese, Denis Hatebur, Maritta Heisel*
- Making Implicit Safety Requirements Explicit. An AUTOSAR Safety Case  
*Thomas Arts, Michele Dorigatti, Stefano Tonetta*

**11:00 – 11:30**      **Coffee break**

**11:30 – 12:30**      **Invited Talk by *Philip Koopman* (CMU)**  
**Software Quality, Dependability and Safety in Embedded Systems**

**12:30 – 13:00**      **Session 3 – Automotive Systems – Resume**  
**Session chair: *Barbara Gallina***

- Securing Vehicle Diagnostics in Repair Shops  
*Pierre Kleberger, Tomas Olovsson*

**13:00 – 14:30**      **Lunch**

## Thursday, 11 September afternoon

14:30 – 15:00      **EWICS session**

15:00 – 16:00      **Session 4 – Coverage Models and Mitigation Techniques**  
**Session chair: *Alexander Romanovsky***

- Analysis of Persistence of Relevance in Systems with Imperfect Fault Coverage  
*Jianwen Xiang, Fumio Machida, Kumiko Tadano, Yoshiharu Maeno*
- Exploiting Narrow Data-width to Mask Soft Errors in Register Files  
*Jianjun Xu, Qingping Tan, Zeming Shao, Hong Ning*

16:00 – 16:30      **Coffee break**

16:30 – 18:00      **Session 5 – Assurance cases and arguments**  
**Session chair: *Francesca Saglietti***

- Towards a Clearer Understanding of Context and Its Role in Assurance Argument Confidence  
*Patrick Graydon*
- Assurance Cases for Block-configurable Software  
*Richard Hawkins, Alvaro Miyazawa, Ana Cavalcanti, Tim Kelly, John Rowlands*
- Generation of Safety Case Argument-Fragments from Safety Contracts  
*Irfan Sljivo, Barbara Gallina, Jan Carlson, Hans Hansson*

## Thursday, 11 September evening Banquet

20:00 – 23:00      **Hotel Astoria, Ristorante Palazzo Gaddi – Via del Giglio, 9/11 – Firenze**  
[www.ristorantegaddifirenze.it](http://www.ristorantegaddifirenze.it)

**Friday, 12 September morning**

**9:00 – 10:00**      **Invited Talk by *Werner Steinhoegl* (European Commission)**  
**Cyber-Physical Systems in Horizon 2020 – Trends in EU research and innovation activities**

**10:00 – 11:00**      **Session 6 – System Analysis**  
**Session chair: *Elena Troubitsyna***

- Estimating worst case failure dependency with partial knowledge of the difficulty function  
*Peter Bishop, Lorenzo Strigini*
- Debugging with Timed Automata Mutations  
*Bernhard K. Aichernig, Klaus Hörmaier, Florian Lorber*

**11:00 – 11:30**      **Coffee break**

**11:30 – 13:00**      **Session 7 – Security and Trust**  
**Session chair: *Floor Koornneef***

- Trust-Based Intrusion Tolerant Routing in Wireless Sensor Networks  
*Francesco Buccafurri, Luigi Coppolino, Salvatore D'Antonio, Alessia Garofalo, Gianluca Lax, Antonino Nocera, Luigi Romano*
- A Petri Net Pattern-oriented approach for the Design of Physical Protection Systems  
*Francesco Flammini, Ugo Gentile, Stefano Marrone, Roberto Nardone, Valeria Vittorini*
- On two models of noninterference: Rushby and Greve, Wilding, and Vanfleet  
*Adrian Garcia Ramirez, Julien Schmaltz, Freek Verbeek, Bruno Langenstein, Holger Blasum*

**13:00 – 14:30**      **Lunch**

**Friday, 12 September afternoon**

**14:30 – 16:00**

**Session 8 – Notations/Languages for safety-related aspects**  
**Session chair: *Lorenzo Strigini***

- Specifying Safety Monitors for Autonomous Systems using Model-checking  
*Mathilde Machin, Fanny Dufossé, Jean-Paul Blanquart, Jeremie Guiochet, David Powell, Hélène Waeselynck*
- Automatically Generated Safety Mechanisms from Semi-Formal Software Safety Requirements  
*Raphael Fonte Boa Trindade, Lukas Bulwahn, Christoph Ainhauser*
- Querying Safety Cases  
*Ewen Denney, Dwight Naylor, Ganesh Pai*

**16:00 – 16:30**

**Coffee break**

**16:30 – 18:00**

**Session 9 – Safety and Security**  
**Session chair: *Francesco Buccafurri***

- Security Application of Failure Mode and Effect Analysis (FMEA)  
*Christoph Schmittner, Thomas Gruber, Peter Puschner, Erwin Schoitsch*
- Safety and security interactions modeling using the BDMP formalism: case study of a pipeline  
*Siwar Kriaa, Marc Bouissou, Freredic Colin, Yoran Halgand, Ludovic Pietre-Cambacedes*
- A Pragmatic Approach towards Safe and Secure Medical Device Integration  
*Christoph Woskowski*

**Closing and adjourn**

## Conference Venue

### About Florence

Florence (Italian: Firenze) is the capital city of Tuscany and the most populous city in Tuscany, with approximately 370,000 inhabitants, expanding to over 1.5 million in the metropolitan area. Florence is famous for its history. A centre of medieval European trade and finance and one of the wealthiest cities of the time, Florence is considered the birthplace of the Renaissance, and has been called the Athens of the Middle Ages. From 1865 to 1871 the city was also the capital of the Kingdom of Italy. The historic centre of Florence attracts millions of tourists each year, and it was declared a World Heritage Site by UNESCO in 1982. Due to Florence's artistic and architectural heritage, it has been ranked by Forbes as one of the most beautiful cities in the world. The city also contains numerous museums and art galleries, such as the Uffizi Gallery and the Pitti Palace, amongst others.

### Auditorium al Duomo

The main conference will take place at the "[Congressi al Duomo](#)" Florence Centre ([Auditorium al Duomo](#)). The congress centre is located in the heart of the historic center of Florence, a few steps from the central railway station (Santa Maria Novella), the Duomo cathedral, the Uffizi Gallery, the Ponte Vecchio, and the Accademy of Fine Arts.

Auditorium al Duomo

[www.auditoriumalduomo.com](http://www.auditoriumalduomo.com)

Via de' Cerretani, 54/R – 50123 Firenze, Italy

Phone: +39 055 2381752 – Fax: +39 055 268308



### Palazzo Coppini

Some of the Workshops will be held at [Palazzo Coppini](#), an historical palace of unquestionable interest, whose structural and decorative elements reflect some of the most crucial periods in the city's history, especially those before its expansion beyond the 13th century walls, in the 19th century.

Palazzo Coppini

<http://www.palazzocoppini.org>

Via del Giglio, 10 – 50123 Firenze, Italy

Phone: +39 055 216066



## Ristorante Sabatini

Lunches and Coffee breaks will be served at [Ristorante Sabatini](#), one of the finest and most traditional restaurants in Florence.

Sabatini

[www.ristorantesabatini.it](http://www.ristorantesabatini.it)

Via Panzani, 9/a – 50123 Firenze, Italy

Phone: +39-055211559 | +39-055282802

Fax: +39-055210293

## SAFECOMP Welcome Reception

Wednesday, 10 September evening Reception – 19:30

The SAFECOMP welcome reception will be held at the Harry'S Bar, a place with its authentic elegance, where most of the Florentines are used to meet to enjoy a cocktail or a glass of wine. Located in Lungarno Vespucci, it can be reached from the conference venue in less than 10 minutes walk across the city center, unless you don't get lost while admiring the beautiful streets of downtown Florence.

HARRY'S BAR – Lungarno Vespucci, 22/R Firenze

[www.harrysbarfirenze.it](http://www.harrysbarfirenze.it)

## SAFECOMP Banquet

Thursday, 11 September evening Banquet – 20:00 – 23:00

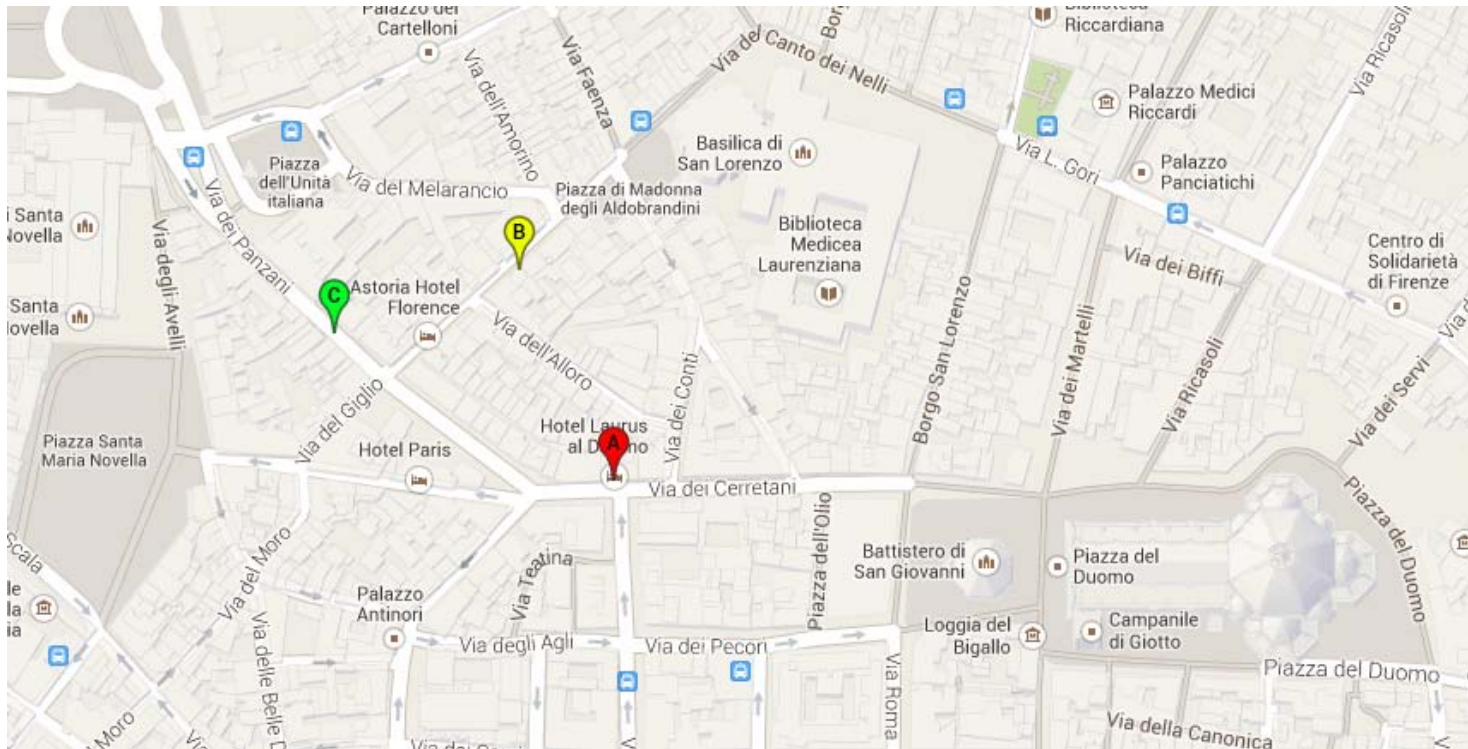
The SAFECOMP Banquet will be held at the restaurant Palazzo Gaddi, located into Gaddi Arrighetti Palace, a hystorical palace built in XVIII Century by one of the most important Florentine families. Its beautiful rooms, the courtyard garden and the panoramic terrace make the atmosphere sophisticated, but appropriate for every need. In the same building there is also Boscolo Astoria Hotel, in which the restaurant is placed.

It can be reached from the conference venue in less than 5 minutes.

Hotel Astoria, Ristorante Palazzo Gaddi – Via del Giglio, 9/11 – Firenze

[www.ristorantegaddifirenze.it](http://www.ristorantegaddifirenze.it)

# Conference Map



**A**

**Auditorium al Duomo**  
Via de' Cerretani, 54/R –  
Firenze

- Main Conference and Workshop Registration
- Main Conference
- ISSE Workshop
- DECSoS Workshop

**B**

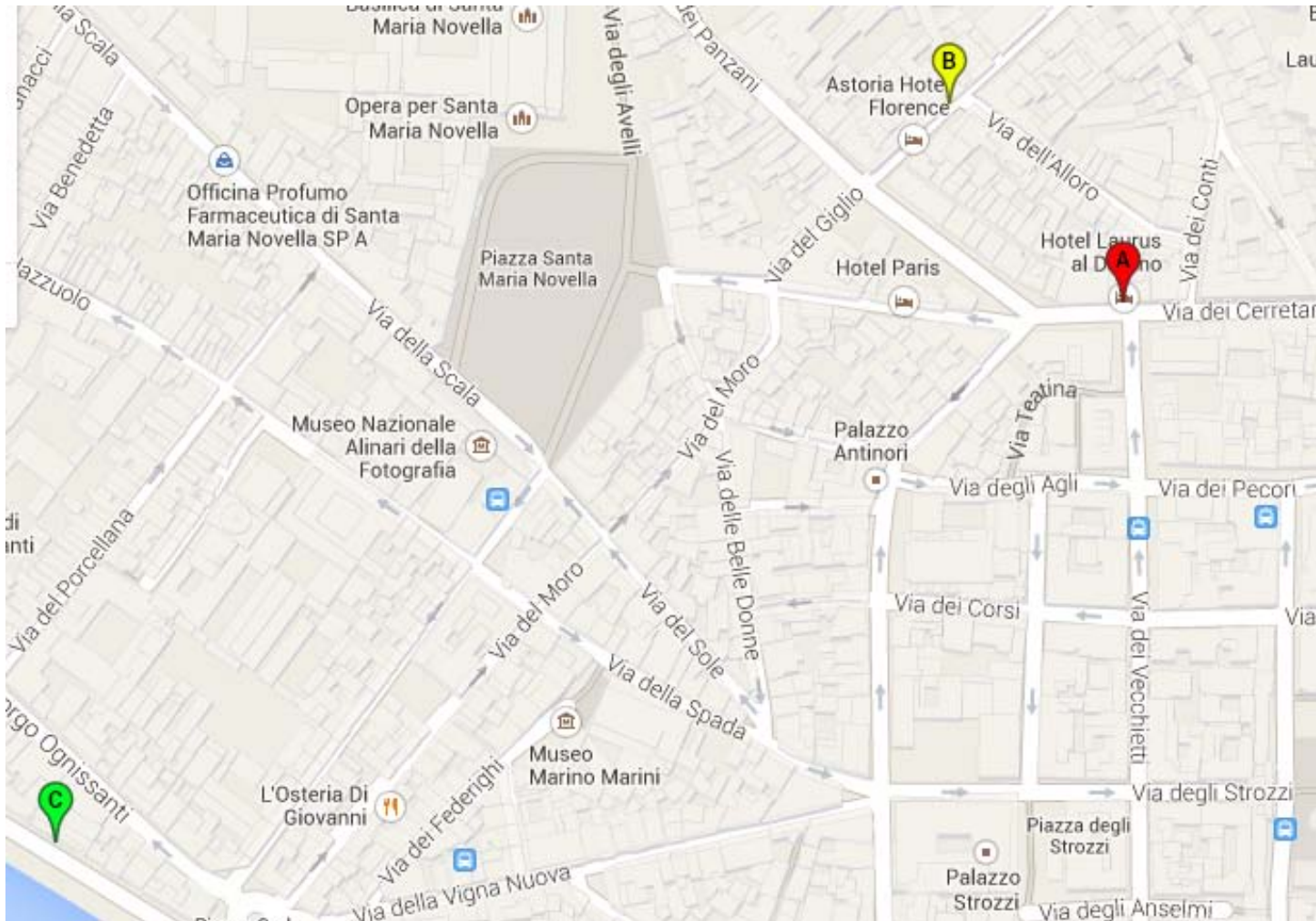
**Palazzo Coppini**  
Via del Giglio, 10 – Firenze

- DEVVARTS Workshop
- ASCoMS Workshop
- SASSUR Workshop
- ReSA4CI Workshop

**C**

**Ristorante Sabatini**  
Via Panzani, 9/a – Firenze  
Lunches and Coffe Breaks

## Social Events Map



A

**Main Conference Venue**  
Auditorium al Duomo  
Via de' Cerretani, 54/R –  
Firenze

B

**SAFECOMP Banquet**  
Hotel Astoria, Ristorante  
Palazzo Gaddi  
Via del Giglio, 9/11 – Firenze

C

**SAFECOMP Welcome  
Reception**  
HARRY'S BAR  
Lungarno Vespucci, 22/R  
Firenze

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