The ISoLA Symposium is a forum for developers, users, and researchers to discuss issues related to the adoption and use of rigorous tools for the specification, analysis, verification, certification, construction, test, and maintenance of systems from the point of view of their different application domains. To bridge the gap between designers and developers of (formal methods based) rigorous tools and users in engineering and in other disciplines, it fosters and exploits synergistic relationships among scientists, engineers, software developers, decision makers, and other stakeholders. In particular, ISoLA aims at supporting researchers in their quest to improve the utility, reliability, flexibility, and efficiency of tools for building systems and users in their search of adequate solutions to their problems. Applications and case studies with a conceptual message and experience papers with a clear link to tool construction are all encouraged.

The Symposium features invited Thematic tracks and sessions containing Research, Survey, Experience, Panel and Tool contributions on the

**Use of Techniques**
- Deduction and model-checking
- System construction and transformation
- Program analysis and verification
- Composition and refinement
- Testing and test-case generation
- Hybrid and safety-critical systems
- Model-based testing and automata learning

**for Application Areas**
- Automotive and mechanical engineering
- Biomechanics, bioinformatics
- Electrical engineering, embedded systems, and controllers
- Healthcare and assisted living
- Telecommunications, Internet applications, mobile computing
- Transportation and aviation
- Transformation & processing-oriented industries
- Machine Automation

**Track Themes and Thematic Sessions**
- Statistical Model Checking, Past Present and Future
- Formal Methods and Analysis in Software Product Line Engineering
- Risk-Based Testing
- Scientific Workflows
- Medical Cyber Physical Systems
- Model-Based Code-Generators and Compilers
- Evaluation and Reproducibility of Program Analysis
- Automata Learning
- Rigorous Engineering of Autonomous Ensembles
- Engineering Virtualized Services
- Security and Dependability for Resource Constrained Embedded Systems
- Semantic heterogeneity in the formal development of complex systems
- Evolving Critical Systems

**Co-Sponsored by**
- International School on Tool-based Rigorous Engineering of Software Systems -STRESS 2014*
- Challenge on Rigorous Examination of Reactive Systems (RERS 2014)
- Graduate/Postgraduate Course on "Soft Skills for IP Professionals in Science and Engineering"
- Future of Software Day (FoSD 2014)
- Tutorial: Automata Learning in Practice
- Industrial Day

All accepted contributions will be published in the Symposium’s LNCS Proceedings (Springer Verlag). Selected contributions will be invited to the Innovations in Systems and Software Engineering: A NASA Journal (Springer Verlag, London), and so STTT (Springer Verlag, Heidelberg).