



The 12th International Symposium on Theoretical Aspects of Software Engineering

TASE 2018 --- August 29-31, Guangzhou, China

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Modern society is increasingly dependent on software systems that are becoming larger and more complex. This poses new challenges to the various aspects of software engineering, for instance, software dependability in trusted computing, interaction with physical components in cyber physical systems, distribution in cloud computing applications, etc. Hence, new concepts and methodologies are required to enhance the development of software engineering from theoretical aspects. TASE 2018 aims to provide a forum for people from academia and industry to communicate their latest results on theoretical advances in software engineering.

TASE 2018 is the 12th in the TASE series. The past TASE symposia were successfully held in Shanghai ('07), Nanjing ('08), Tianjin ('09), Taipei ('10), Xi'an ('11), Beijing ('12), Birmingham ('13), Changsha('14), Nanjing('15), Shanghai('16) and Nice('17). The proceedings of the TASE 2018 symposium are planned to be published by the IEEE Computer Society Press. The authors of a selected subset of accepted papers will be invited to submit extended versions of their papers to appear in a special issue of the Science of Computer Programs journal. Topics of interest include, but are not limited to:

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| Abstract interpretation | Program analysis |
| Algebraic and co-algebraic specifications | Program logics and calculi |
| Aspect oriented software | Quantum computation |
| Component-based software engineering | Requirements engineering |
| Cyber-physical systems | Reverse engineering and software maintenance |
| Deductive verification | Run-time verification and monitoring |
| Distributed and concurrent systems | Semantic web and web services |
| Embedded and real-time systems | Service-oriented and cloud computing |
| Feature-oriented software | Software processes and workflows |
| Formal verification and program semantics | Software architectures and design |
| Integration of formal methods | Software testing and quality assurance |
| Language design | Software safety, security and reliability |
| Model checking and theorem proving | Specification and verification |
| Model-driven engineering | Type systems and behavioural typing |
| Object-oriented systems | Tools exploiting theoretical results |
| Probability in software engineering | |