

## Table of Contents

### Workshop of Multi-Core Safe and Software-intensive Systems Improvement Community (FORMUS<sup>3</sup>IC)

1. [Fault-tolerant FCC Architecture for future UAV systems based on COTS SoC](#)  
*Sebastian Hiergeist, Florian Holzapfel*
2. [Distributed Multi-Core Development in the Automotive Domain – A Practical Comparison of ASAM MDX vs. AUTOSAR vs. AMALTHEA](#)  
*Andreas Sailer, Stefan Schmidhuber, Maximilian Hempe, Michael Deubzer, Jürgen Mottok*
3. [How to Speed up Embedded Multi-core Systems Using Locality Conscious Array Distribution for Loop Parallelization](#)  
*Niklas Hehenkamp, Remko van Wagenveld, Dominik Schönwetter, Christian Facchi, Ulrich Margull, Dietmar Fey, Ralph Mader*
4. [Certification of Microcontroller based Safety-Critical Avionics](#)  
*Andreas Schwierz, Florian Holzapfel*
5. [I/O Subsystem Interference and Possible Mitigation or Avoidance](#)  
*Georg Seifert*
6. [Models for Dependable Heterogeneous Multi- and Many-Core System Software Design Revisited](#)  
*Tobias Wägemann, Tobias Langer, Jürgen Mottok, Lukas Osinski, Friedhelm Stappert, Ramin Tavakoli Kolagari*

### 3rd International Workshop on Multi-Objective Many-Core Design (MOMAC)

7. [A Many-Core Solution for the Multi-Objective Challenge in the Field of Dynamic Cycle Accurate Verification](#)  
*Tobias Strauch*
8. [A Novel NoC-Architecture for Fault Tolerance and Power Saving](#)  
*Jan Heisswolf, Stephanie Friederich, Leonard Masing, Andreas Weichslgartner, Muhammad Aurang Zaib, Carsten Stein, Marco Duden, Jürgen Teich, Andreas Herkersdorf, Jürgen Becker*
9. [A Time Predictable Heterogeneous Multicore Processor for Hard Real-time GALS Programs](#)  
*Zoran Salcic, Muhammad Nadeem, Bjoern Striebing*
10. [Position Paper: Towards Redundant Communication through Hybrid Application Mapping](#)  
*Andreas Weichslgartner, Jürgen Teich*

### 12th Workshop on Parallel Systems and Algorithms (PASA)

11. [Synchronization of One-Sided MPI Communication on a Non-Cache Coherent Many-Core System](#)  
*Steffen Christgau, Bettina Schnor*
12. [Simulation based Analysis of Memory Access Conflicts for Heterogeneous Multi-Core Platforms](#)  
*Jens Brandenburg, Benno Stabernack*
13. [Embedded Parallel Computing Accelerators for Smart Control Units of Frequency Converters](#)  
*Steffen Vaas, Marc Reichenbach, Johannes Hofmann, Thomas Stadelmayer, Dietmar Fey*

## 4th International Workshop on Self-optimisation in Organic and Autonomic Computing Systems (SAOS)

14. [Measuring Self-Organisation Processes in Smart Camera Networks](#)  
*Stefan Rudolph, Jan Kantert, Uwe Jänen, Sven Tomforde, Jörg Hähner, Christian Müller-Schloer*
15. [From Active Learning to Dedicated Collaborative Interactive Learning](#)  
*Adrian Calma, Jan Marco Leimeister, Paul Lukowicz, Sarah Oeste-Reiß, Tobias Reitmaier, Albrecht Schmidt, Bernhard Sick, Gerd Stumme, Katharina Anna Zweig*
16. [Combining Trust and ETX to Provide Robust Wireless Sensor Networks](#)  
*Jan Kantert, Florian Reinhard, Georg von Zengen, Sven Tomforde, Susanne Weber, Lars Wolf, Christian Müller-Schloer*
17. [Multi-k-Resilience in Distributed Adaptive Cyber-Physical Systems](#)  
*Henner Heck, Christian Gruhl, Stefan Rudolph, Arno Wacker, Bernhard Sick, Jörg Hähner*
18. [Towards an Algorithm and Communication Cost Model for the Parallel Particle Swarm Optimization](#)  
*Romeo Shuka, Sebastian Niemann, Jürgen Brehm, Christian Müller-Schloer*
19. ["Know thyselfes" – Computational Self-Reflection in Collective Technical Systems](#)  
*Jörg Hähner, Sebastian von Mammen, Sabine Timpf, Sven Tomforde, Bernhard Sick, Kurt Geihs, Thilo Goeble, Gerrit Hornung, Gerd Stumme*

## 12th Workshop on Dependability and Fault Tolerance (VERFE)

20. [Using Failure Semantics to Maintain Safety for Dynamic Composed Systems](#)  
*Georg Jäger, Tino Brade, Sebastian Zug*
21. [FABAN – Fault-Tolerant Atomic Broadcast and Agreement in Bridge-Connected Networks](#)  
*Klaus Echtele, Valentin Fitz*
22. [A Fast Byzantine Fault-Tolerant Diagnostic Agreement Protocol for Synchronous Distributed Systems](#)  
*Omar Bousbiba, Klaus Echtele*
23. [Combination of Data Deduplication and Redundancy Techniques in Distributed Systems](#)  
*Peter Sobe*
24. [Enhancing Nanosatellite Dependability Through Autonomous Chip-Level Debug Capabilities](#)  
*Christian M. Fuchs, Nikolaus Dafinger, Martin Langer, Carsten Trinitis*