

# Call for Papers



**ARC 2021**  
INTERNATIONAL SYMPOSIUM ON  
APPLIED RECONFIGURABLE COMPUTING  
Rennes, June 29th - July 1st, 2021



## The 17th International Symposium on Applied Reconfigurable Computing 29 June – 1 July 2021, Rennes, France

<https://arc2021.inria.fr>

### Symposium Information

Reconfigurable computing technologies offer the promise of substantial performance gains over traditional architectures via customizing the topology of the underlying architecture to match the specific needs of a given application, even at runtime. Contemporary configurable architectures allow for the definition of architectures with functional and storage units that match in function, bit width, and control structures the specific needs of a given computation. The flexibility enabled by reconfiguration is also seen as a basic technique for overcoming transient failures in emerging device structures.

The symposium aims to bring together researchers and practitioners of reconfigurable computing with an emphasis on practical applications of this promising technology.

The ARC 2021 proceedings will be published as a volume in Springer's Lecture Notes in Computer Science (LNCS) series, and will also be available through the SpringerLink online service. The authors of selected papers will be invited to submit extended versions of their work to a special issue of International Journal of Signal Processing Systems.



### Important Dates

- Submission Deadline: ~~22 February 2021~~
- **Extended Deadline: 15 March 2021**
- Tutorial Deadline: 31 March 2021
- Author Notification: 16 April 2021
- Camera-Ready: 7 May 2021



### Submission Information

Authors are invited to submit original contributions in English including, but not limited to, the areas of interest mentioned below. Submissions must be uploaded on

<https://easychair.org/conferences/?conf=arc2021>

and identify the format of the contribution as either:

- **Long Papers: (15 pages maximum)** should cover mainly completed results (oral presentation)
- **Short Papers: (10 pages maximum)** may also treat work-in-progress or report on very recent developments (poster presentation)

Note that these page limits include tables, figures, and references. The format of the paper should follow the Springer LNCS formatting style.

### Topics of Interest

#### Design Methods & Tools

- High-level Languages & Compilation
- Simulation & Synthesis
- Estimation Techniques
- Design Space Exploration
- Run-Time Systems & Virtualization

#### Applications

- Security & Cryptography
- Time Sensitive/Critical Networks
- Big Data, HPC, Event Processing
- Embedded Computing & DSP
- Robotics, Space, Bioinformatics, Automotive
- Safety & Mission Critical Systems
- Deep Learning & Neural Networks

#### Architectures

- Self-adaptive, evolvable
- Heterogeneous & Embedded MPSoCs
- Low-Power Designs
- Approximate Computing
- Fine-/Coarse-/Mixed-grained
- Interconnect (NoCs, ...)
- Resilient & Fault Tolerant
- Close-to-Sensor & Close-to-Memory Computing

#### Trends (in)

- Teaching RC
- Surveys and Future Trends
- Benchmarks
- Emerging Technologies
- Cyberphysical Systems

*Inria*

UNIVERSITÉ DE  
RENNES 1

# Call for Papers



**ARC 2021**  
INTERNATIONAL SYMPOSIUM ON  
APPLIED RECONFIGURABLE COMPUTING  
Rennes, June 29th - July 1st, 2021



## Organizing Committee

### General Chair:

- Daniel Chillet – Univ Rennes, IRISA, Inria – France

### Program Chairs:

- Steven Derrien – Univ Rennes, IRISA, Inria – France
- Frank Hannig – Friedrich-Alexander University Erlangen-Nürnberg, Germany

### Proceedings Chair:

- Pedro Diniz – INESC-ID, Lisboa, Portugal

### Web Chair:

- Angeliki Kritikakou – Univ Rennes, IRISA, Inria – France

### Local Chair:

- Olivier Sentieys – Univ Rennes, IRISA, Inria – France

### Local Arrangement

- Edith Blin – Inria Rennes – France
- Mickaël Dardaillon – INSA Rennes – France
- Cedric Killian – Univ Rennes, IRISA, Inria – France
- Kevin Martin – Univ Bretagne – Sud, LabSTICC – France

### Steering Committee

- Hideharu Amano – Keio University – Japan
- Jürgen Becker – Karlsruhe Institute of Technology – Germany
- Mladen Berekovic – Universität zu Lübeck – Germany
- Koen Bertels – Delft University of Technology – The Netherlands
- João M. P. Cardoso – University of Porto – Portugal
- Katherine (Compton) Morrow – University of Wisconsin-Madison – USA
- George Constantinides – Imperial College London – UK
- Pedro Diniz – INESC-ID, Lisboa – Portugal
- Philip H.W. Leong – University of Sydney – Australia
- Walid Najjar – University of California Riverside – USA
- Roger Woods – Queen's University of Belfast – UK

### Program Committee

- Hideharu Amano – Keio University – Japan
- Zachary Baker – Los Alamos National Laboratory – USA
- Jesus Barba – University of Castilla – La Mancha – Spain
- Jürgen Becker – Karlsruhe Institute of Technology – Germany
- João Bispo – University of Porto (FEUP) – Portugal
- Vanderlei Bonato – University of São Paulo – Brazil
- Christos Bouganis – Imperial College London – UK
- Marcelo Brandalero – Brandenburg University of Technology Cottbus – Germany
- João Canas Ferreira – University of Porto (FEUP) – Portugal
- João Cardoso – University of Porto (FEUP) – Portugal

### Program Committee

- Luigi Carro – Universidade Federal do Rio Grande do Sul – Brazil
- Ray Cheung – City University of Hong Kong – China
- Daniel Chillet – Univ Rennes, IRISA, Inria – France
- Steven Derrien – Univ Rennes, IRISA, Inria – France
- Giorgos Dimitrakopoulos – Democritus Univ of Thrace – Greece
- Pedro Diniz – INESC-ID, Lisboa – Portugal
- Antonio Ferrari – University of Aveiro – Portugal
- Ricardo Ferreira – Universidade Federal de Vicosa – Brazil
- Apostolos Fournaris – Technological Educational Institute of Western Greece – Greece
- Mohammad Ghasemzadeh – Apple Inc. – USA
- Roberto Giorgi – University of Siena – Italy
- Diana Goehring – TU Dresden – Germany
- Marek Gorgon – AGH Univ of Science and Technology – Poland
- Frank Hannig – Friedrich-Alexander University Erlangen-Nürnberg – Germany
- Jim Harkin – University of Ulster – Northern Ireland
- Christian Hochberger – TU Darmstadt – Germany
- Michael Huebner – Brandenburg University of Technology Cottbus – Germany
- Kimon Karras – InAccel – Greece
- Krzysztof Kepa – GE Global Research – USA
- Georgios Keramidas – Aristotle Univ of Thessaloniki – Greece
- Andreas Koch – TU Darmstadt – Germany
- Angeliki Kritikakou – Univ Rennes, IRISA, Inria – France
- Tomasz Kryjak – AGH Univ of Science and Technology – Poland
- Konstantinos Masselos – University of Peloponnese – Greece
- Cathal McCabe – Xilinx – Ireland
- Antonio Rosario Miele – Politecnico di Milano – Italy
- Takefumi Miyoshi – e-trees.Japan, Inc. – Japan
- Walid Najjar – University of California Riverside – USA
- Brent Nelson – Brigham Young University – USA
- Horacio Neto – Universidade de Lisboa – Portugal
- Dimitris Nikolos – University of Patras – Greece
- Kyprianos Papadimitriou – Technical Univ of Crete – Greece
- Monica Pereira – Univ Federal do Rio Grande do Norte – Brazil
- Thilo Pionteck – Otto-von-Guericke Universität Magdeburg – Germany
- Marco Platzner – University of Paderborn – Germany
- Mihalis Psarakis – University of Piraeus – Greece
- Fernando Rincon – University of Castilla – La Mancha – Spain
- Marco Domenico Santambrogio – Politecnico di Milano – Italy
- Yukinori Sato – Toyohashi University of Technology – Japan
- Antonio Carlos Schneider Beck Filho – Universidade Federal do Rio Grande do Sul – Brazil
- Yuichiro Shibata – Nagasaki University – Japan
- Hayden Kwok-Hay So – University of Hong Kong – Hong Kong
- Dimitrios Soudris – National Technical Univ of Athens – Greece
- Gustavo Sutter – Universidad Autonoma de Madrid – Spain
- George Theodoridis – University of Patras – Greece
- David Thomas – Imperial College London – UK
- Nikolaos Voros – Technological Educational Institute of Western Greece – Greece
- Chao Wang – Univ of Science and Technology of China – China