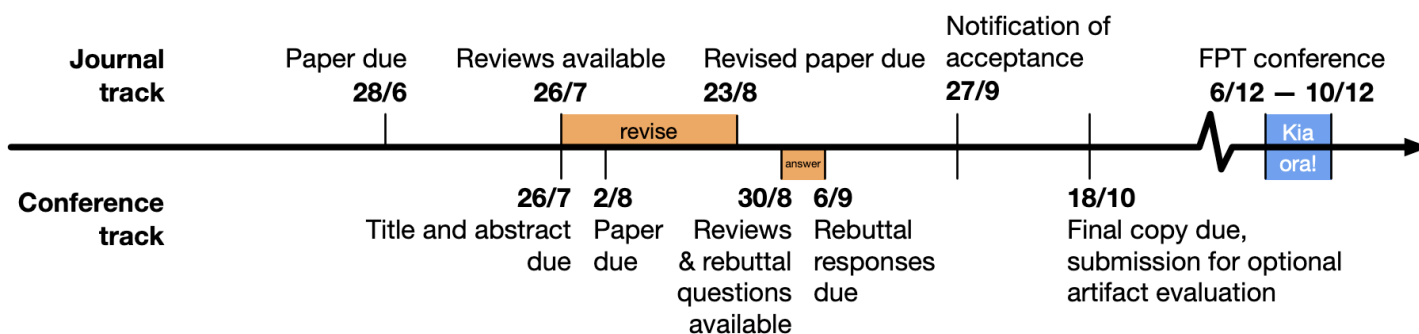


The International Conference on Field-Programmable Technology (FPT'21)

Important Dates (all 23:59, AoE)

- ~~Submission to TRETS for new FPT Journal Track:~~ **June 14, 2021**
- Title and abstract due for regular FPT papers (*extended*): **July 26, 2021**
- Paper submission due for regular FPT papers (*extended*): August 2, 2021
- Initial TRETS FPT Journal Track reviews available: July 26, 2021
- Workshop/Tutorial/Special Session Proposals due: August 2, 2021
- Initial reviews/rebuttal questions available for FPT papers: August 30, 2021
- Submission of revised TRETS FPT Journal Track papers: August 23, 2021
- Notification for Workshop/Tutorial/Special Session Proposals: August 23, 2021
- Rebuttal responses due for regular FPT papers: September 6, 2021
- Notification of acceptance: September 27, 2021
- Final copy due: October 18, 2021
- Optional submission of artifacts for accepted papers to new FPT Artifact Evaluation initiative: October 18, 2021

- FPT'21 Conference: December 6-10, 2021
- Workshops/Tutorials: December 6-7, 2021



The FPT conference is the premier conference in the Asia-Pacific region on field-programmable technologies including reconfigurable computing devices and systems containing such components. Field-programmable devices promise the flexibility of software with the performance of hardware. The development and application of field-programmable technology have become important topics of research and development. Field-programmable technology is widely applied, in high-performance computing systems, embedded and low-power control instruments, mobile communications, rapid prototyping and product emulation, among other areas.

At this early stage, it is still unclear what the specific format of FPT 2021 is going to be, as this will depend on the state of the CoViD pandemic. Possible options include a fully virtual conference, or a hybrid format combining on-site with remote presentations. Given the advances in vaccine rollout, though, we are guardedly optimistic that we will be able to meet in person in Auckland. But there will always be an online option for authors!

Submissions are solicited on new research results and detailed tutorial expositions related to field-programmable technologies, including but not limited to:

- Tools and Design Techniques for field-programmable technology including placement, routing, synthesis, verification, debugging, runtime support, technology mapping, partitioning, parallelization, timing optimization, design and run-time environments, high-level synthesis (HLS) compilers, languages and modeling techniques, provably-correct development, intellectual property core-based design, domain-specific development, hardware/software co-design.
- Architectures for field-programmable technology including field-programmable gate arrays, complex programmable logic devices, coarse-grained reconfigurable arrays, field-programmable interconnect, field-programmable analogue arrays, field-programmable arithmetic arrays, memory architectures, interface technologies, low-power techniques, adaptive devices, reconfigurable computing systems, high-performance reconfigurable systems, evolvable hardware and adaptive computing, fault tolerance and avoidance.
- Device technology for field-programmable logic including programmable memories such as non-volatile, dynamic and static memory cells and arrays, interconnect devices, circuits and switches, and emerging VLSI device technologies.
- Applications of field-programmable technology including accelerators for biomedical / scientific / neuro-morphic computing and machine learning, network processors, real-time systems, rapid prototyping, hardware emulation, digital signal processing, interactive multimedia, machine vision, computer graphics, cryptography, robotics, manufacturing systems, embedded applications, evolvable and biologically-inspired hardware.
- Education for field-programmable technology including courses, teaching and training experience, experiment equipment, design and applications.

Note that simply implementing an application using an FPGA is not considered a sufficient research contribution. Application-based papers should emphasize novel design techniques, novel use of embedded resources, or clearly articulated and measured system performance benefits.

Submission Guidelines

FPT 2021 is grateful to the ACM “Transactions on Reconfigurable Technology and Systems” (TRETs) for enabling us to, for the first time, offer a Journal Track in addition to regular and short papers directly submitted to FPT. The Journal Track is specifically intended for submissions that would benefit from the longer articles possible in TRETs (up to 32 ACM-style single-column pages), e.g., for clearer presentation of complex research, or an in-depth discussion of comprehensive results. Submissions to the Journal Track that do not take advantage of the additional space offered by TRETs, or deviate significantly from the TRETs Author Guidelines

<https://dl.acm.org/journal/trets/author-guidelines> ,

will receive the corresponding feedback early, and can then be revised and entered into the direct FPT submission process.

Journal Track Submissions (NEW FOR FPT 2021)

When you decide to submit to the Journal Track, you will use the TRETTS submission system

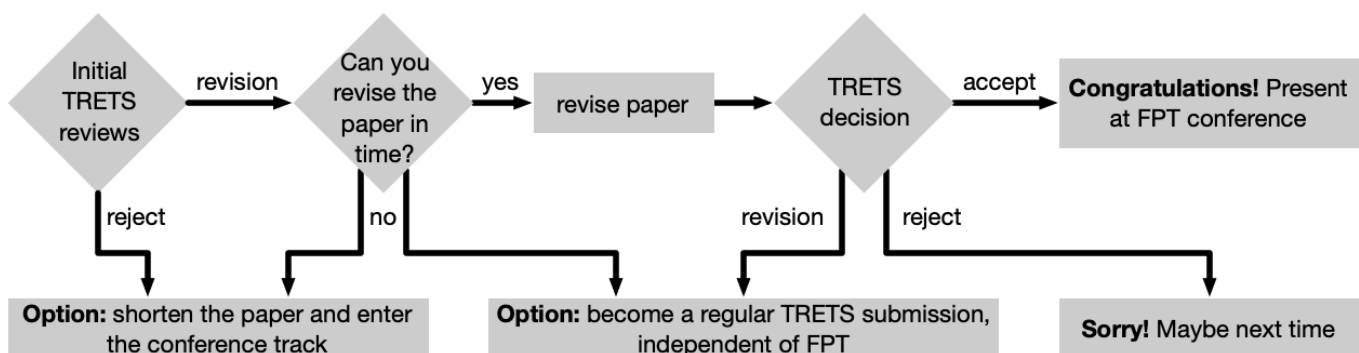
<https://mc.manuscriptcentral.com/trets>

to submit to the “FPT 2021 Journal Track” (which you can select after logging into your TRETTS account), and then follow the *ACM TRETTS Author Guidelines* as described above.

Note that the deadline for the FPT Journal Track is *earlier* than the deadline for direct FPT submissions. Your submission will then undergo the regular TRETTS review process, and you will be provided with an initial set of reviewer comments and recommendations as outlined in the schedule above. If your submission is not rejected here, you will have sufficient time to revise the submission, and then submit it for a second round of reviews for inclusion in the Journal Track. You will be notified of the final decision on your TRETTS Journal Track submission together with the rest of the direct FPT submissions.

Should your Journal Track submission be rejected in the TRETTS *initial* review, or you feel you cannot fully address the revisions requested by the TRETTS reviewers in the time provided, you may withdraw your submission from the Journal Track. You then have the option to submit a version of your paper, shortened according to the rules for regular/short FPT papers, to enter the regular review process for a *direct FPT submission*.

If you decide not to submit a revised version in time for the FPT Journal Track deadline above, or your revised version would need another round of revision, as decided by the final FPT PC discussions, you may choose to have an eventual later revision continue as a regular TRETTS submission, independently of the FPT conference.



Accepted Journal Track papers will receive a regular presentation slot at the conference, but will only appear as an abstract in the FPT proceedings. That abstract will refer to the full publication in TRETTS.

Direct FPT Submissions

For direct submission to the FPT conference, the program committee solicits full and short papers describing original research in field-programmable technology, including, but not limited to, the areas of interest indicated above. Papers should be submitted electronically in PDF format, following the IEEE style. Full papers can include up to 8 pages of content, plus unlimited pages for references. Short papers are limited to 4 pages in total, including references.

Manuscripts must not identify authors or their affiliations for double-blind review. Papers that identify authors will NOT be considered. Please use

<https://easychair.org/conferences/?conf=fpt21>

for submission. For details, please visit the FPT'21 website.

FPT'21 will also include a rebuttal phase, where the authors have the opportunity to answer specific questions on their submission, posed by the reviewers.

It is also planned to invite the best direct submissions to FPT to contribute to an FPT 2021 Special Issue of ACM TRETTS after the conference.

Artifact Evaluation (NEW FOR FPT 2021)

Also, for the first time, FPT will be able to offer the authors of *accepted* papers to optionally participate in an artifact evaluation process, aiming to increase the reproducibility of results. Details on this will be forthcoming and be described on the FPT web site. Note that participating in this optional process will *not* require you to open-source your research artifacts!

Call for Workshop/Tutorial proposals

We also call for workshops and tutorials, which will be held in advance of the conference. For details, please visit the [Workshops/Tutorials page](#) on the FPT web site.

Organizing Committees

General Chair:

- [Oliver Sinnen](#), PARC lab, University of Auckland, New Zealand

Vice Chair:

- Bruce Sham, University of Auckland, New Zealand

Program Chairs:

- Andreas Koch, Technical University of Darmstadt, Germany
- Wei Zhang, Hong Kong University of Science and Technology, Hong Kong

Publication Chair:

- Morteza Biglari-Abhari, University of Auckland, New Zealand

Design Competition Chairs:

- Donald Bailey, Massey University, New Zealand
- Minoru Watanabe, Shizuoka University, Japan

Workshop/Tutorial Chair:

- Julian Oppermann, Technical University of Darmstadt, Germany

Publicity Chair:

- He Li, University of Cambridge, UK

Website design:

- Nour Alaraj, Auckland, New Zealand

Steering Committee:

- Oliver Diessel (Chair) - University of New South Wales, Australia
- Hideharu Amano - Keio University, Japan
- Paul Beckett - RMIT University, Australia
- Donald Bailey - Massey University, New Zealand
- Neil Bergmann - University of Queensland, Australia
- Jinian Bian - Tsinghua University, China
- Masahiro Fujita - University of Tokyo, Japan
- Philip Leong - University of Sydney, Australia
- Qiang Liu (Tianjin U., China)
- Wayne Luk - Imperial College London, UK
- Wai-Kei Mak - National Tsing Hua University, Taiwan

- Tulika Mitra - National University of Singapore, Singapore
- Tadao Nakamura - Tohoku University, Japan
- Yu Peng - Harbin Institute of Technology, China
- Kentaro Sano - RIKEN, Japan
- Theerayod Wiangtong - Mahanakorn University of Technology, Thailand
- Steve Wilton - University of British Columbia, Canada
- Lingli Wang - Fudan University, China
- Weng Fai Wong - National University of Singapore, Singapore

Program Committee:

Dimitrios	Agiakatsikas	UNSW
Hideharu	Amano	Keio University
Jason	Anderson	University of Toronto
Kota	Ando	Tokyo Institute of Technology
David	Andrews	University of Arkansas
Jonathan	Babb	Massachusetts Institute of Technology
Donald	Bailey	Massey University
Jason	Bakos	University of South Carolina
Kia	Bazargan	Univ of Minnesota
Juergen	Becker	Karlsruhe Institute of Technology
Paul	Beckett	RMIT University
Mladen	Berekovic	ITI, Uni Luebeck
Vaughn	Betz	University of Toronto
Morteza	Biglari-Abhari	The University of Auckland
Christophe	Bobda	University of Florida
Christos	Bouganis	Imperial College London
Philip	Brisk	University of California, Riverside
Joao	Cardoso	University of Porto
Emmanuel	Casseau	INRIA
Vivek	Chaturvedi	Indian Institute of Technology, Palakkad
Ray	Cheung	City University of Hong Kong
Peter	Cheung	Imperial College London
Paul	Chow	University of Toronto
James	Davis	Imperial College London
Florent	de Dinechin	CITI, INSA de Lyon, université de Lyon, INRIA
Andre	Dehon	University of Pennsylvania
Dionysios	Diamantopoulos	IBM Research - Zurich
Oliver	Diessel	The University of New South Wales
Apostolos	Dollas	Technical University of Crete
Ken	Eguro	Microsoft
Suhaib A.	Fahmy	KAUST
Zhenman	Fang	Simon Fraser University
Ann	Gordon-Ross	University of Florida

Yuko	Hara-Azumi	Tokyo Institute of Technology
Christian	Hochberger	TU Darmstadt
Michael	Huebner	Brandenburg University of Technology Cottbus
Jim	Hwang	Xilinx, Inc
Peter	Jamieson	Miami University
Kenji	Kanazawa	University of Tsukuba
Nachiket	Kapre	University of Waterloo
Andreas	Koch	TU Darmstadt
Dirk	Koch	The University of Manchester
Alexander	Kroh	The University of New South Wales
Martin	Kumm	University of Applied Sciences, Fulda
Jongeun	Lee	Ulsan National Institute of Science and Technology
Miriam	Leeser	Northeastern Univ.
Guy	Lemieux	The University of British Columbia
Philip	Leong	The University of Sydney
He	Li	University of Cambridge
Qiang	Liu	Tianjin University
Wayne	Luk	Imperial College
Jean Francois	Nezan	INSA Rennes, IETR laboratory
Tran Huu Nguyen	Nguyen	Faculty of CS and Eng., HCM University of Technology
Julian	Oppermann	Technical University of Darmstadt
Marco	Platzner	University of Paderborn
Christian	Plessl	Paderborn University
Alok	Prakash	Nanyang Technological University
Viktor	Prasanna	University of Southern California
Soojung	Ryu	Seoul National University
Ron	Sass	UNC Charlotte
Gilles	Sassatelli	LIRMM, Univ. Montpellier II / CNRS
Chiu-Wing	Sham	The University of Auckland
Sharad	Sinha	Indian Institute of Technology (IIT) Goa
Oliver	Sinnen	University of Auckland
Hayden Kwok-Hay	So	University of Hong Kong
Jürgen	Teich	University of Erlangen-Nuremberg
Russell	Tessier	University of Massachusetts, Amherst
Zeke	Wang	Zhejiang University
Yu	Wang	Tsinghua Univ.
Markus	Weinhardt	Osnabrueck University of Applied Sciences, Fak. Iul
Steve	Wilton	The University of British Columbia
Felix	Winterstein	XELERA Technologies
Wei	Zhang	The Hong Kong University of Science and Technology
Jieru	Zhao	Shanghai Jiao Tong University
Jianwen	Zhu	University of Toronto