

# CCGrid 2021

21<sup>th</sup> IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing

May 10-13, 2021, Melbourne, Australia  
<http://www.cloudbus.org/ccgrid2021>

## CALL FOR PAPERS

The 21st IEEE/ACM international Symposium on Cluster, Cloud and Internet Computing (CCGrid 2021) is a leading forum to disseminate and discuss research activities and results on a broad range of topics in distributed systems, ranging from computing Clusters to widely distributed Clouds and emerging Internet computing paradigms such as Fog/Edge Computing for Internet of Things (IoT)/Big Data applications. The conference features keynotes, technical presentations, posters, workshops, tutorials, as well as the SCALE challenge featuring live demonstrations and the IC FEC 2021 conference.

In 2021, IEEE/ACM CCGrid 2021 will be 'self-located' with its postponed 2020 edition, in Melbourne, Australia. We will jointly celebrate the 20th and 21st anniversary of the conference! We solicit original contributions on all aspects of distributed systems and applications in the context of Cluster, Cloud, and Internet computing environments. Specific topics of interest include but are not limited to the following:

- **Internet Computing Frontiers:** Edge, Fog, Serverless, Lambda, Streaming - Highly decentralized approaches to cloud computing. Edge/Fog computing, sensor data streaming and computation on the edges of the network. Function as a Service (Faas), Backend as a Service (BaaS), serverless computing, lambda computing.
- **Architecture, Networking, Data Centers:** Service oriented architectures. Utility computing models. IaaS, PaaS, SaaS, \*aaS paradigms. Service composition and orchestration. Software-Defined Network-enabled Systems. Micro-datacenter, cloudlet, edge, or fog computing infrastructure. Virtualized hardware: GPUs, tensor processing units, FPGAs.
- **Storage and I/O Systems:** Distributed storage, cloud storage, Storage as a Service, data locality techniques for in-memory processing, storage in the edge.
- **Programming Models and Runtime Systems:** Programming models, languages, systems and tools/environments. Virtualization, containers, and middleware technologies. Actors, agents, programming decentralized computing systems.
- **Resource Management and Scheduling:** Resource allocation algorithms, profiling, modeling. Cluster, cloud, and internet computing scheduling and meta-scheduling techniques.
- **Performance Modelling and Evaluation:** Performance models. Monitoring and evaluation tools. Analysis of system/application performance.
- **Cyber-Security, Privacy and Resilient Distributed Systems:** Distributed Systems security and trust. Access

control. Data privacy and integrity. Regulation. Resiliency of service attacks.

- **Sustainable and Green Computing:** Environment friendly computing ecosystems. Hardware/software/application energy efficiency. Power, cooling and thermal awareness.
- **Applications:** Data Science, Artificial Intelligence, Machine Learning, Cyber-Physical Systems, e-Health, Internet of Things (IoT)-enabled Smart Systems and Applications.

## PAPER SUBMISSION

Authors are invited to submit papers electronically. Submitted manuscripts should be structured as technical papers and may not exceed 10 letter size (8.5 x 11) pages including figures, tables and references using the IEEE format for conference proceedings. All manuscripts will be reviewed and will be judged on correctness, originality, technical strength, significance, quality of presentation, and relevance to the conference attendees.

Submitted papers must represent original unpublished research that is not currently under review for any other conference or journal. Papers not following these guidelines will be rejected without review and further action may be taken, including (but not limited to) notifications sent to the heads of the institutions of the authors and sponsors of the conference. Submissions received after the due date, exceeding length limit, or not appropriately structured may also not be considered. Authors may contact the conference chairs for more information. The proceedings will be published through the IEEE Press, USA and will be made online through the IEEE and ACM Digital Libraries.

## CHAIRS & COMMITTEES

### General Chair

Rajkumar Buyya, University of Melbourne, Australia  
Gul Agha, University of Illinois at Urbana-Champaign, USA

### Program Committee Co-Chairs

Laurent Lefevre, INRIA, France  
Stacy Patterson, RPI, USA  
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### Workshops Co-Chairs

George Pallis, University of Cyprus, Cyprus  
Haiying Shen, University of Virginia, USA

## IMPORTANT DATES

**Papers Due (Abstract):** December 8, 2020  
**Papers Due (Final):** December 15, 2020 (**Firm Deadline**)  
**Notification of Acceptance:** February 8, 2021  
**Camera Ready Papers Due:** March 3, 2021