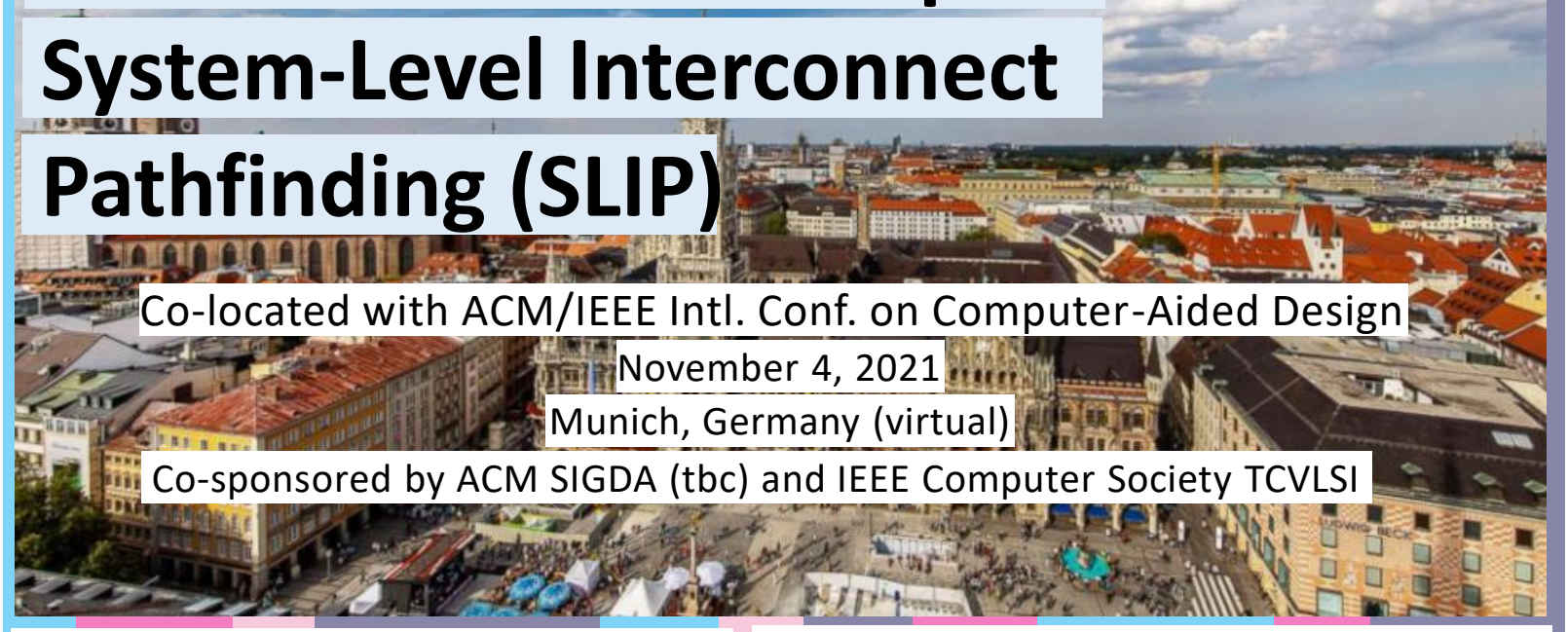
23rd ACM/IEEE International Workshop on System-Level Interconnect Pathfinding (SLIP)

www.SLIPonline.org



Co-located with ACM/IEEE Intl. Conf. on Computer-Aided Design

November 4, 2021

Munich, Germany (virtual)

Co-sponsored by ACM SIGDA (tbc) and IEEE Computer Society TCVLSI

The technical goal of the workshop is to (1) identify fundamental problems, and (2) foster new pathfinding of design, analysis, and optimization of system-level interconnects with emphasis on **system-level interconnect modeling and pathfinding, DTCO-enhanced interconnect fabrics, memory and processor communication links, novel dataflow mapping for machine learning, 2.5/3D architectures, and new fabrics for the beyond-Moore era.**

Technical topics include but are not limited to:

- Learning and predictive models for interconnect at various IC and system design stages
- Roadmapping and pathfinding of on-chip interconnect and 2.5D/3D chip-to-chip communication interfaces
- System-level design for FPGAs, NoCs, reconfigurable systems, and domain-specific multi/many-core systems
- Design, analysis, and (co)optimization of power, clock distribution networks, and memory partitioning systems
- System-level interconnect reliability, aging, thermal, yield and cost issues
- Topologies and fabrics of multi- and many-core architectures
- Predictive models for power and performance of system-level interconnects
- Interconnects in bio-inspired systems, such as artificial neural networks; and quantum architectures

There are two special sessions this year:

- 3DIC architectures and high-speed interconnects
- DTCO-enhanced power/clock distribution and EDA flows

Format:

More interactive, workshop-like tone and format despite it is held virtual this year exceptionally. The workshop includes keynotes, regular paper sessions, interactive panels, tutorials, invited talks, and interactive poster sessions.

Keynote Talks (to be confirmed):

- *Always-on edge-AI and connectivity, Dr. Evgeni Gousev (Qualcomm)*
- *3DIC architectures and chiplets for heterogenous computing, Dr. Tanay Karnik (Intel)*
- *Memory-centric computing, Prof. Onur Mutlu (ETZH)*

Submission:

We invite authors to submit papers of 4 to 8 pages, double-columned, 9pt/10pt font in ACM proceedings format available at: https://www.acm.org/publications/proceedings-template.

To permit double blind review, all papers must remove author information. Authors should submit papers electronically: https://easychair.org/conferences/?conf=slip2021

Content is submitted to IEEE Xplore.

Important Dates:

Abstract Registration: July 9, 2021
Paper Submission: July 30, 2021
Author Notification: September 10, 2021
Final Version Upload: October 1, 2021

General Chair: Mustafa Badaroglu (Qualcomm)

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Special Sessions Co-Chairs:
Pascal Vivet (CEA), Yuzo Fukuzaki (TechInsights)