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

Co-hosted with ACM/IEEE Intl. Conf. on Computer-Aided Design (ICCAD)

November 4, 2021
Virtual Event

Co-sponsored by ACM SIGDA and IEEE Computer Society TCVLSI

www.sliponline.org

Accepted papers are published in IEEE/ACM proceedings.

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
- 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:

1. **3DIC architectures and high-speed energy-efficient on/off-chip interconnects**
2. **DTCO-enhanced physical design and EDA flows**

Format:

More interactive, workshop-like tone and format despite being held virtually this year. The workshop includes keynotes, regular paper sessions, and invited talks.

Keynote Talks:

1. *Always-on edge-AI and connectivity, Dr. Evgeni Gousev (Qualcomm)*
2. *Recent advances and future challenges in 2.5D/3D heterogeneous integration, Dr. Tanay Karnik (Intel)*

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 via: https://easychair.org/conferences/?conf=slip2021

Accepted papers are published in IEEE/ACM proceedings and listed by IEEE Xplore.

Important Dates (Late Papers):

Paper Submission: **September 5, 2021**
Author Notification: **August 31, 2021 (early papers)**
September 20, 2021 (late papers)
Final Version Upload: **September 30, 2021**

General Chair: Mustafa Badaroglu (Qualcomm)
Steering Committee Members:
Andrew Kahng (UC San Diego), Dirk Stroobandt (UGent)
Baris Taskin (Drexel Univ)
Finance Chair: Ivan Ciofi (imec)
Publicity Chair: Poona Bahrebar (UGent)
Publications Chair: Seungwon Kim (UC San Diego)

Technical Program Committee:
Co-Chairs: Brian Cline (Arm), Ismail Bustany (Xilinx)
Members: Ivan Ciofi (imec), Titash Rakshit (Qualcomm), Shantanu Dutt (Univ. Illinois at Chicago), Rasit Topaloglu (IBM), Payman Zarkesh-ha (Univ New Mexico)
Special Sessions Co-Chairs:
Pascal Vivet (CEA), Yuzo Fukuzaki (TechInsights)