

WORKSHOP on EMERGING MEMORY INFRASTRUCTURE



THE TOPIC

One of the principal challenges in advancing beyond CMOS microelectronics is the pursuit of alternatives to the von Neumann computer architecture. There's a pressing demand for innovative memory technologies that integrate seamlessly with current CMOS processing and transcend the scalability constraints of existing memory systems. A breakthrough in emerging memory technologies would be pivotal for a broad spectrum of applications, ranging from standalone and embedded memory systems to AI accelerators in analog and digital domains.

THE DRIVERS

Progress in bridging identified knowledge gaps has been sluggish, impeded by three primary factors:

- The unique challenges and requirements of in-memory processing compared to traditional storage solutions.
- The prevalence of inconsistent and unverified findings in research due to suboptimal fabrication conditions casts doubt on the reliability of circuit and system design models.
- The limited availability of cutting-edge fabrication and testing facilities is often restricted to selected industry and national laboratories.

This triad of challenges underscores the need for a concerted effort to accelerate discovery and development in this critical field of memory technology.

THE INVITATION

Join us in this special Workshop as part of this year's EIPBN conference to converse with government, industry, and academia experts who will share their experiences and perspectives on the importance of infrastructure for emerging memory research. Topics will range from materials characterization and device and circuit measurements to memory system applications in data storage and AI computing. A list of speakers will be available soon. Stay tuned.

Register for EIPBN to access this workshop and more: <https://eipbn.org/>

WEDNESDAY

MAY

29

2024

1:20 pm-5:20 pm
Hilton La Jolla,
Torrey Pines
San Diego, CA

Student Travel Awards

The National Science Foundation offers Travel Awards to students eager to attend the Emerging Memory Infrastructure Workshop. These awards aim to enhance students' comprehension of their field through exposure to expert presentations and in-depth technical discussions. Additionally, the workshop presents valuable networking opportunities and interactions.

Students interested in applying for the Travel Awards should email a cover letter and an advisor's endorsement letter to [Prof. Linda Katehi-Tseregounis](#). Funds are limited, please apply as soon as possible.

Please note that this Travel Award is different from the [Student Support](#) from the EIPBN conference chair. A student can only apply for ONE of these awards.