Keynote Address 2



**“Hybrid Memory Cube: Achieving High Performance and High Reliability”,** Brent Keeth, Senior Fellow, Advanced DRAM Architectures, Micron Technology, Inc.


**Abstract**

This keynote presentation will explore the genesis, architecture and construction of the Hybrid Memory Cube. The presentation will open with a discussion on how both technical and market forces led to the creation of HMC. This will be followed by a dive into the Gen 2 HMC design—detailing the design goals for the device and how manufacturability was a priority from day one. 3D integration is pivotal technology for HMC. As such, it will be explored in the context of key enablers and ongoing challenges. Finally, the presentation will discuss how HMC encompasses a variety of RAS features to improve manufacturability and to ensure long term device reliability.