2013 Symposia on VLSI Circuits Workshop

(Suzaku Ⅲ)

Tuesday, June 11

10:45-11:45 Emerging NonVolatile Memory Technology and its implications to Server Compute systems

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Abstract

We will discuss implications of DRAM/Flash scaling challenges at sub 20nm technology nodes to Server compute systems in the 2013-2016 time frame from a performance, power/thermal, and reliability perspective, then lead into the discussion of emerging NVM technologies (STT-MRAM, PCRAM, RRAM) and how they will impact server compute systems. We will provide key technical perspectives on advanced Si technology directions, and how it will impact/influence Server memory subsystem from a performance, power/thermal, reliability and RAS standpoint, and discuss emerging NVM technologies' benefits, risk factors, cost challenges, and its overall impact towards future Memory Hierarchy/Storage Class Memory enablement.

Biography

Jung Yoon is a Senior Technical Staff Member and Technology & Quality lead in IBM's Integrated Supply Chain Organization, where he is responsible for Advanced Memory Technology (DRAM, NAND & Emerging Memory) Qualification and Quality Management for IBM Server applications. Prior to joining the field of Integrated Supply Chain, he worked at IBM Watson Research focused on lithography and MRAM technologies and in the IBM Semiconductor Research & Development Center focused on Advanced Lithography systems. In his current role, Jung drives advanced memory technology convergence between IBM Server requirements and Memory supplier capabilities. He has a Doctoral Degree from Columbia University, MS from UC Berkeley and BS from Seoul National University. He has been with IBM for 23 years.