

Jon Slaughter – Colloquium Seminar November 6, 2023
IBM

Title: Magnetoresistive Random Access Memory (MRAM) from scientific discoveries to commercial products

Abstract

Fundamental discoveries in the physics of magnetic materials and devices made during 1980s, 90s and 2000s enabled a revolution in commercial product offerings for data storage and nonvolatile memory that continues today. The development of MRAM technology is a wonderful case study in how discoveries move from laboratory research to product development and, sometimes, into commercial production. The physics and the business of MRAM will be discussed, including recent developments, technology outlook, and lessons learned over almost 30 years as a physicist in the semiconductor industry.

Blurb

Jon Slaughter received his Ph.D. in physics from MSU in 1988 and has since worked in academia and industry with roles spanning materials, process and device R&D, new product definition, and nine years as VP of Technology R&D for the venture-backed spin-out Everspin Technologies. He was a key contributor to the first commercial MRAM product in 2006 and the first commercial spin-transfer-torque MRAM product in 2013, as well as other discrete and embedded MRAM and magnetic sensor products. He has over 110 issued US patents and over 100 technical publications. Jon is currently a Principal Research Scientist at IBM Semiconductors in Albany, New York.