IEDM 72nd International Electron Devices Meeting

莊紹勳教授研究群
電阻式記憶體的最後一哩路- 1V 3D晶片示範

2026 IEEE International Electron Devices Meeting
December 12-16, 2025 San Francisco Hilton



Session 20: MT | Nonvolatile Memories
Dec. 15 Tuesday 2:00 PM, Grand Ballroom A

2:05 PM

20-1 | A 3nm FinFET Secure PUF-Obfuscated 320-kb Anti-Fuse eNVM:STI-less Bitcell Design with In-Cell Redundancy

2:30 PM
20-2 | Embedded RRAM for Automotive Microcontrollers – Invited

2:55 PM
20-3 | Gain Cell RRAM: An Ultimate Solution of 1V 3D Vertical Resistive-Gate RAM with QLC Operation for FinFET Generation and Beyond
Y. T. Wang, S. P. Ho, C. F. Zhan, C. H. Sung, Y. T. Yang, P. H. Shih, J. C. Guo, Z. H. Lin*, O. Cheng*, Steve Chung
National Yang Ming Chiao Tung University * UMC

3:45 PM
20-4 | Universal MRAM: Enabling Sub- 10 ns RAM-like Applications and Bridge the FLASH-to-RAM Memory Performance Gap in Advanced CMOS

4:10 PM
20-5 | 16-Kb Field-Free Type-Cone SOT-MRAM Enabled by Domain-Wall Chirality Engineering

4:35 PM
20-6 | Monolithic Multi-Interface 2Gb MRAM for In-Orbit AI Application

5:00 PM
20-7 | Switching Volume Confinement in Selector-Only Memory (SOM) via a Sub-2 nm Two-Dimensional Electron Gas Electrode for Large Memory Window (> 1.4 V) and Excellent Write Endurance (> 5 x 10^{10})

