

**Tohoku Forum for Creativity**  
**International Workshop : Spintronics VLSI**

**Time & Date** November 20 (Friday) - November 21 (Saturday), 2015

**Venue:** Conference Room, Laboratory for Nanoelectronics and Spintronics, Tohoku University

**Program:**

**November 20 (Friday)**

	<b>Title</b>	<b>Speaker</b>	<b>Chair</b>
14:00-14:10	<b>Opening remarks</b> Impact of Spintronics and CMOS Hybrid VLSI	Tetsuo Endoh (Tohoku University)	
14:10-14:50	<b>Invited talk 1</b> Low Dissipation Spin-Orbitronics Systems	Kang L Wang (UCLA)	
14:50-15:30	<b>Invited talk 2</b> The Progresses of MRAM, the effect on Energy saving, and Discussion on a Potential for Further saving	Hiroaki Yoda (Toshiba)	Tetsuo Endoh (Tohoku University)
15:30-16:00	Group Photo & Break		
16:00-16:40	<b>Invited talk 3</b> Fully Functional 64Mb pMTJ STT-MRAM Chips on 300mm Wafers	Yiming Huai (Avalanche)	Tetsuo Endoh (Tohoku University)
16:40-17:20	<b>Invited talk 4</b> Recent advances of STT-MRAM for emerging memory Devices	Sechung Oh (Samsung)	

**November 21 (Saturday)**

	<b>Title</b>	<b>Speaker</b>	<b>Chair</b>
10:30-11:10	<b>Invited talk 5</b> Overview of embedded SRAM/DRAM, and prospect of STT-MRAM technology for advanced SoC solutions	Koji Nii (Renesas Electronics)	Takahiro Hanyu (Tohoku University)
11:10-11:50	<b>Invited talk 6</b> Emergence of STT-MRAM as a Unified Embedded Memory for Internet-of-Things	Seung H. Kang (Qualcomm)	
11:50-14:00	Lunch		
14:00-14:40	<b>Invited talk 7</b> High-Density and Low-Power Applications of Spintronics Circuits: High-Density 1T1MTJ-MRAM Array Design, and Low-Power 4T2MTJ-MRAM-based Pattern Recognition Processor	Hiroki Koike (Tohoku University)	Takahiro Hanyu (Tohoku University)
14:40-15:20	<b>Invited talk 8</b> MRAM for hybrid CMOS/Magnetic electronics: perpendicular anisotropy and integrated logic concepts	Ricardo C. Sousa (Spintec)	
15:20-16:00	<b>Invited talk 9</b> Spintronics-Based Logic-in-Memory Architecture Towards Dark Silicon Era	Takahiro Hanyu (Tohoku University)	Tetsuo Endoh (Tohoku University)
16:00-16:10	<b>Closing remarks</b>	Tetsuo Endoh (Tohoku University)	