

# 2011 Frontier of

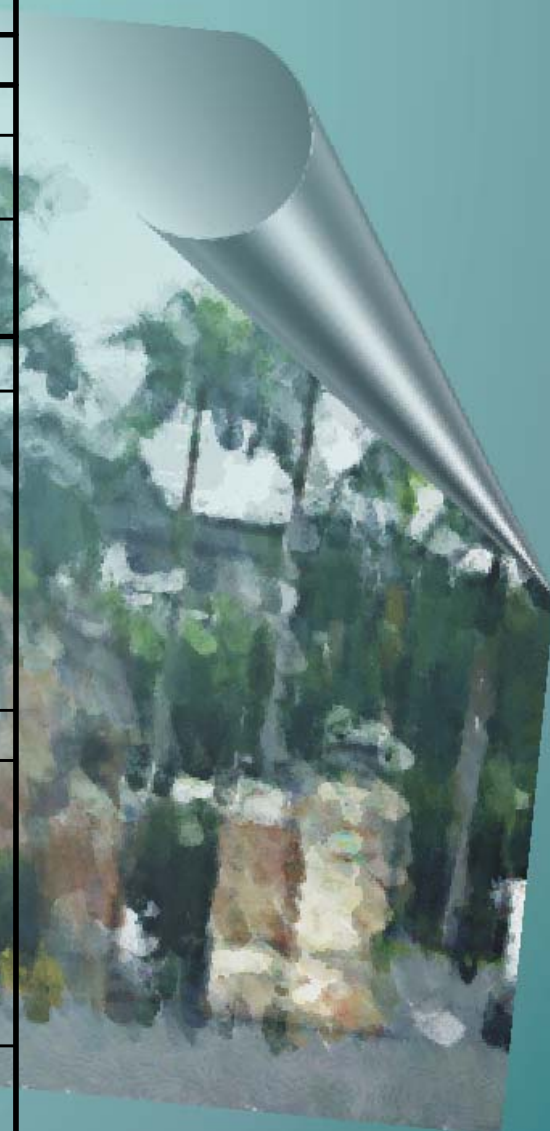
# Spintronics / Nanoelectronics

## Workshop

Time : 2011/4/24(Sun)

Venue : Hsinchu Ambassador Hotel

Time	Program
08:40-09:20	Registration
09:20-09:30	Opening
Chair: Ching-Ray Chang (National Taiwan University)	
09:30-10:10	<b>"Spintronics: introduction and emerging directions of today"</b> Albert Fert (Nobel Laureate, France)
10:10-10:50	<b>"Spin on Nano!"</b> Stuart Parkin (IBM, USA)
10:50-11:10	Coffee break
Chair: Dr. YJ Jan ( Industrial Technology Research Institute)	
11:10-11:50	<b>"The Current and Future of Nanoelectronics - Non-volatile Memory as a Driving Device"</b> C.Y. Lu (President, Macronix International Co., Ltd.; Chairman, Ardentec Corporation., Taiwan)
11:50-12:30	<b>"Predicting the application field for Spin device, Graphenes and Nano-oxide device on the base of the scalability of Si devices"</b> Dr. Uin Chung, (Head of Semiconductor Lab. Of Samsung Advanced Institute, Korea)
12:30-13:30	Lunch break
13:30-15:00	Forum I : <b>"Interaction between Spintronics and Nanoelectronics devices"</b> Moderator: Hideo Ohno (Tohoku Uni., Japan) (TBA) Panelists: Bernard Dieny (Grenoble), <b>"Non-volatile MRAM concepts for scalable Logic-in-memory circuits based on hybrid CMOS/magnetic technology"</b> Denny Tang (MagicIC, USA), <b>"MRAM: opportunity for collaboration between Si and Magnetics community"</b> Philip Wong (Stanford Univ., USA), <b>"Nanoscale Electronic Devices"</b> Philip Kim(Columbia Univ., USA), <b>"Toward Graphene Quantum Electronics"</b>
15:00-15:15	Coffee break
15:15-16:45	Forum II : <b>"The future of logic/memory device"</b> Moderator: Fu-Liang Yang (Director, NanoDeviceLab, Taiwan) , <b>"Nano-Injection Lithography and 9nm R-RAM"</b> Panelist: Kang Wang (UCLA, USA), <b>"Spintronics for Nonvolatile Nanoelectronics"</b> Yiming Huai, (Avalanche Technology, USA), <b>"Progress and Outlook for STT-MRAM"</b> C.Y Sung, (IBM, USA), <b>"Large scale graphene for future nanoelectronics"</b> Hiroyuki Akinaga, (AIST, Japan), <b>"Non-volatile memory and logic devices based on functional oxides"</b>
16:45-17:15	Conclusions and summary Chair: Stuart Parkin (IBM,USA) Albert Fert, CY Lu, H. Ohno, Fu-Liang Yang, Uin Chung



**\*All attendees must register on-line before April 15, 2011.**

<http://www.tl.ntu.edu.tw/2011/fsn/>



Sponsors:  
National Taiwan University (NTU)  
Industrial Technology Research Institute (ITRI)  
National Nano Device Labs (NDL), NARL



Contact:  
Ping-Ying Lai /Dept. of Phys./NTU  
Tel:886-2-33665095 Fax:886-2-23639984  
email:pying@phys.ntu.edu.tw

Clara Wu /EOL/ITRI  
Tel:886-3-5919046 Fax:886-3-5820221  
email:clara@itri.org.tw

Co-Sponsors :  
Chinese Institute of Electrical Engineering  
Center for Quantum Science and Engineering  
Taiwan Association of Magnetic Technologies  
IEEE Magnetic Society Taiwan Chapter  
Center for Nanostorage Reserch

