

## 2011 IIRW Technical Program

Start	End		Description	Speaker
<b>Sunday, October 16, 2011</b>				
3:00 PM	6:00 PM	<b>Registration</b>	Pick up badges and handouts, DG & SIG sign-up	
3:00 PM	8:00 PM	<b>Lodge Check-in</b>	Get room assignment and room key	
6:15 PM	7:30 PM	<b>Dinner</b>	(dining room), authors dine with your session chair	
7:30 PM	9:00 PM	<b>Invited Talk</b>	History of IIRW	O.D. Bud Trapp
<b>Monday, October 17, 2011</b>				
7:00 AM	8:00 AM	<b>Breakfast</b>	(dining room)	
8:05 AM		<b>Opening</b>	(Angora Room)	
8:05 AM	8:15 AM		Welcome and Introduction	Rolf Geilenkeuser
8:15 AM	8:30 AM		Technical Program Overview	Drew Turner
8:30 AM	9:30 AM	<b>Keynote</b>	Scaling to the final frontier: To seek out new challenges and solutions, to boldly go where few have gone before	Tanya Nigam
9:30 AM	9:40 AM	<b>Break</b>		
9:40 AM	11:40 AM	<b>Session #1</b>	<b>Bias Temperature Instability</b> (Angora Room)	
		<b>1.1</b>	<b>(INVITED)</b> Separating NBTI and PBTI effects on the degradation of ring oscillator frequency	Barry Linder
		<b>1.2</b>	On the PBTI degradation of pMOSFETs and its impact on IC lifetime	Christian Schlünder
		<b>1.3</b>	Cryogenic to room temperature effects of NBTI in high-k PMOS devices	Richard G. Southwick III
		<b>1.4</b>	On the microscopic limit of the reaction-diffusion model for the Negative Bias Temperature Instability	Schanovsky
11:40 AM	12:00 PM	<b>Author's Corner</b>		
12:00 PM	1:00 PM	<b>Lunch</b>	(dining room)	
1:00 PM	2:30 PM	<b>Tutorial #1</b>	...charge pumping fundamentals	Daniel Bauza
2:30 PM	3:45 PM	<b>Session #2</b>	<b>DEVICES</b> (Angora Room)	
		<b>2.1</b>	<b>(INVITED)</b> 22nm variability	David Fried
		<b>2.2</b>	Experimentally based methodology for charge pumping bulk defect trapping correction	Jason Ryan
		<b>2.3</b>	Modeling of DCIV recombination currents using a multistate multiphonon model	Bina
3:45 PM	4:05 PM	<b>Break/Author's Corner</b>		
4:05 PM	5:35 PM	<b>Tutorial #2</b>	"Reliability of Poly-Si TFTs and metal-oxide-semiconductor TFTs"	Ryoichi Ishihara
5:35 PM	7:00 PM	<b>Dinner</b>	(dining Room)	
7:00 PM	8:30 PM	<b>Poster Session</b>	(Cathedral Room)	Tibor Grasser
8:30 PM	10:00 PM	<b>Mixer</b>		

## 2011 IIRW Technical Program

**Tuesday, October 18, 2011**

7:00 AM	8:00 AM	<b>Breakfast</b>	(dining room)	
8:05 AM	8:15 AM	<b>Announcements</b>	(Angora Room)	Rolf / Drew
8:15 AM	9:45 AM	<b>Tutorial #3</b>	“Reliability assurance and process control for products walking at the edge of the abyss”	Tim Turner
9:45 AM	10:00 AM	<b>Break</b>		
10:00 AM	11:25 AM	<b>Session #3</b>	<b>Circuits</b> (Angora Room)	
		<b>3.1</b>	<b>(INVITED)</b> Recent trends in CMOS reliability: from individual traps to circuit simulations	Ben Kaczer
		<b>3.2</b>	When does a circuit really fail?	Jason Ryan
11:25 AM	11:40 AM	<b>Break/Author's Corner</b>		
11:40 AM	12:00 PM	<b>Group Picture</b>		
12:00 PM	1:15 PM	<b>Lunch</b>	(dining room)	
1:15 PM	2:25 PM	<b>Tutorial #4</b>	New methodologies for reliability testing and analysis: GaN electronic devices - beyond Arrhenius	Martin Kuball
2:25 PM	3:15 PM	<b>Session #4</b>	<b>III-V Devices</b> (Angora Room)	
		<b>4.1</b>	Reliability analysis of enhancement-mode GaN MIS-HEMT with gate-recess structure for power supplies	Tadahiro Imada
		<b>4.2</b>	Reliability and degradation mechanism of 0.25 $\mu$ m AlGaIn/GaN HEMTs under rf stress conditions	Michael Dammann
3:15 PM	3:35 PM	<b>Break/Author's Corner</b>		
3:35 PM	5:05 PM	<b>Tutorial #5</b>	“Ghosts in the machine – how subatomic-scale events impact us and what we can do about it”	Robert Baumann
5:05 PM	5:25 PM	<b>JEDEC</b>	<b>(INVITED)</b> JEDEC	Tim Sullivan
5:25 PM	7:00 PM	<b>Dinner</b>	(dining Room)	
7:00 PM	8:30 PM	<b>Discussion Groups</b>		Jim Lloyd
8:30 PM	10:00 PM	<b>SIGs</b>		Jim Lloyd

## 2011 IIRW Technical Program

### Wednesday, October 19, 2011

7:00 AM	8:00 AM	<b>Breakfast</b>	(dining room)	
8:05 AM	8:15 AM	<b>Announcements</b>	(Angora Room)	Rolf / Drew
8:15 AM	9:15 AM	<b>Tutorial #6</b>	“New architectures for non volatile semiconductor memory scaling and related reliability issues”	S. Lombardo
9:15 AM	9:40 AM	<b>Session #5</b> <b>5.1</b>	<b>Memory</b> (Angora Room) User verify and disturb mechanisms in a 65nm flash FPGA	James Jia
9:40 AM	10:00 AM	<b>Break/Author's Corner</b>		
10:00 AM	11:40 AM	<b>Session# 6</b>	<b>BEOL</b> (Angora Room)	
		<b>6.1</b>	Electron spin resonance studies of interlayer dielectrics	Brad Bittel
		<b>6.2</b>	Constant voltage electromigration testing	Jim Lloyd
		<b>6.3</b>	Effects of current density on electromigration resistance trace analysis	Franck BANA
		<b>6.4</b>	Inline process characterization and control for robust BEOL reliability	Yong Chiang
11:40 AM	12:00 PM	<b>Break/Author's Corner</b>		
12:00 PM	1:30 PM	<b>Lunch</b>	(dining Room)	
1:30 PM	6:00 PM	<b>Open</b>	The afternoon is left free for discussions/interactions, hiking & recreation; all attendees are required to be back before darkness	
6:00 PM	7:30 PM	<b>Dinner</b>	(dining Room)	
7:30 PM	8:30 PM	<b>Poster Session</b>	(Cathedral Room)	Tibor Grasser
8:30 PM	9:30 PM	<b>Discussion Groups</b>		Jim Lloyd
9:30 PM	10:30 PM	<b>SIGs</b>		Jim Lloyd

## 2011 IIRW Technical Program

**Thursday, October 20, 2011**

7:00 AM	8:00 AM	<b>Breakfast</b>	(dining room)	
8:05 AM	8:15 AM	<b>Announcements</b>	(Angora Room)	Rolf / Drew
8:15 AM	9:30 AM	<b>Session# 7</b>	<b>Hot Carriers</b> (Angora room)	
		7.1	Effect of pre-stress on hot-carrier degradation of n-channel LDD MOSFETs	Thomas E. Kopley
		7.2	An advanced RF-CV method as a powerful characterization tool for the description of HC induced defect generation at microscopic level	Laurent Negre
		7.3	Hot-carrier and recovery effect on p-channel lateral DMOS transistors	Stefano Aresu
9:30 AM	10:20 AM	<b>Session# 8</b>	<b>fWLR/TDDB</b> (Angora room)	
		8.1	Reliability degradation of MOS transistors originated from plasma process-induced charging of circuit blocks and detected with fWLR methods	Andreas Martin
		8.2	TDDB characterization of BST capacitors exhibiting bimodal Weibull distributions	Hanh LIN
10:20 AM	10:45 AM	<b>Author's Corner / Break / Check out</b>		
10:45 AM	11:35 AM	<b>Session # 9</b>	<b>Late News</b> (Angora Room)	
		9.1	LN#1	
		9.2	LN#2	
11:35 AM	12:00 PM	<b>DG/Summary Wrap-up</b>		
12:00 PM	1:00 PM	<b>Lunch</b>	(dining room) Attendees must leave Stanford Sierra Camp after Lunch	