

**2021 IEEE International Reliability Physics Symposium**  
**Technical Program-at-a-Glance March 21 - 24th, VIRTUAL**  
*All Times in Pacific Daylight Time (PDT)*

**Sunday • March 21**

Time - PDT	Duration	Virtual Kick-off Day 1			
8:00 AM	0	Monterey Main Stage			
8:00 AM	15	GC Welcome & Introduction - <i>Robert Kaplar</i>			
8:15 AM	15	Overview of Technical Program - <i>Chris Connor</i>			
8:30 AM	5	Awards - <i>Charlie Slayman</i>			
8:35 AM	45	KN1 - Keynote Speaker - <i>Seok-Hee Lee, CEO SK Hynix</i>			
9:20 AM	0	Big Sur	Carmel	Pebble Beach	
9:20 AM	0	2A- GD	2B-GAN	2C- NC	Tutorials
9:20 AM	5	Session Intro			
9:25 AM	25	2A.1 - ESREF	2B.1 - McDonald	2C.1 - Ielmini	9:20 - 10:50 AM Tu1 3D Packaging: E. Kabir
9:50 AM	25	2A.2	2B.2	2C.2 - Chang	
10:15 AM	25	2A.3	2B.3	2C.3	
10:40 AM	25	2A.4	2B.4	2C.4	
11:05 AM	25	2A.5	2B.5	2C.5	
11:30 AM	30	Authors' Corner			
	220	11:20 AM - 3:00 PM PDT Exhibitor Meet & Greet			
12:00 PM	180	12:00 PM - 3:00 PM PDT Break (180 min)			
3:00 PM	0	Welcome back			
3:00 PM	0	Big Sur			
3:00 PM	0	2D- NC	Tutorials	Tutorials	Tutorials
3:00 PM	5	Session Intro	3:00 - 4:30 PM	3:00 - 4:30 PM	3:00 - 4:30 PM
3:05 PM	25	2D.1 - Wang	Tut2 Bayesian Stats: Y. Liu	Tut3 Reliability Testing: Y. Zhao	Tut4 5G/mmW/RF: F. Guarin & D. Gajewski
3:30 PM	25	2D.2			
3:55 PM	25	2D.3			
4:20 PM	25	2D.4			
4:45 PM	25	Authors' Corner			
5:10 PM	0	Monterey Main Stage			
5:10 PM	0	Reliability Year in Review			
5:10 PM	5	Introduction - <i>Charlie Slayman</i>			
5:15 PM	50	YIR1 - Transistor - FinFET vs Nanosheet: <i>A. Chasin</i>			
6:05 PM	50	YIR2 - Reliability Testing: <i>D. Slottke</i>			
6:55 PM	50	YIR3 - ESD/LU: <i>C. Duvvury</i>			
7:45 PM	0	Closing for day			

**Monday • March 22**

Time - PDT	Duration	Virtual Kick-off Day 2			
8:00 AM	0	Monterey Main Stage			
8:00 AM	45	KN2 - Keynote Speaker - <i>John Palmour, CTO Cree / Wolfspeed</i>			
8:45 AM	0	Big Sur	Carmel		
8:45 AM	0	3A- PI	3B-5G	Tutorials	Tutorials
8:45 AM	5	Session Intro			
8:50 AM	25	3A.1	3B.1 - Cressler	8:45 - 10:15 AM Tut5 Neuromorphic Computing: B. Hoskins	8:45 - 10:15 AM Tut6 Calculation of Terrestrial Cosmic-Ray Displacement Damage: M. Raine-Theillet & N. Richard
9:15 AM	25	3A.2	3B.2 - Dammann		
9:40 AM	25	3A.3	3B.3		
10:05 AM	25	3A.4	3B.4		
10:30 AM	25	Authors' Corner			
10:55 AM	25				
11:20 AM	25				
11:45 AM	20	11:20 AM - 3:00 PM PDT Exhibitor Meet & Greet			
	220	12:05 PM - 3:00 PM PDT Break (175 min)			
12:05 PM	175	12:05 PM - 3:00 PM PDT Break (175 min)			
3:00 PM	0	Welcome back			
3:00 PM	0	Big Sur	Carmel	Pebble Beach	
3:00 PM	0	3D-SY/SE	3E-5G	3F- MB	Tutorials
3:00 PM	5	Session Intro			
3:05 PM	25	3D.1 - Han	3E.1 - Purushothaman	3F.1 - Kobrinsky	3:00 - 4:30 PM Tut9 High-k Dielectrics on Non Silicon Semiconductors: C. Young
3:30 PM	25	3D.2	3E.2 - Scarpulla	3F.2	
3:55 PM	25	3D.3	3E.3	3F.3	
4:20 PM	25	3D.4	3E.4	3F.4	
4:45 PM	25	3D.5	Authors' Corner	3F.5	4:30 - 6:00 PM Tut10 Advanced 3D flash memory Architectures: H. Lue
5:10 PM	20	Authors' Corner	Authors' Corner	Authors' Corner	
5:10 PM	0	Big Sur	Carmel	Pebble Beach	
5:30 PM	0	3G- PR/EL	3H-MY	3I-MB	
5:30 PM	5	Session Intro			
5:35 PM	25	3G.1	3H.1 - Ishimaru	3I.1	6:00 - 7:30 PM Tut11 Magnetic Resonance Techniques: M. Anders
6:00 PM	25	3G.2	3H.2	Authors' Corner	
6:25 PM	25	3G.3	3H.3		
6:50 PM	20	Authors' Corner			
7:10 PM	20				
7:30 PM	0	Closing for day			

Tuesday • March 23					
Time - PDT	Duration	Virtual Kick-off Day 3			
8:00 AM	0	Monterey Main Stage			
8:00 AM	45	KN3 - Keynote Speaker - Peter Gammel, CTO MWI at Global Foundries			
8:45 AM	0	Big Sur	Carmel		
8:45 AM	0	4A- CR	4B-RT	Tutorials	Tutorials
8:45 AM	5	Session Intro		8:45 - 10:15 AM Tut12 DRAM Reliability Overview: H. Park	8:45 - 10:15 AM Tut13 Hot Carrier Degradation: S. Tyaginov
8:50 AM	25	4A.1 - Kashyap	4B.1		
9:15 AM	25	4A.2	4B.2		
9:40 AM	25	4A.3	4B.3		
10:05 AM	25	4A.4	4B.4		
10:30 AM	25	4A.5	Authors' Corner	10:15 - 11:45 AM Tut14 Metal Reliability for Advanced Interconnects: O. Varela	10:15 - 11:45 AM Tut15 Automotive Semiconductor Reliability and its Changed Importance for Complex System Engineering: A. Aal & O. Aubel
10:55 AM	25	4A.6			
11:20 AM	25	4A.7 - IIRW			
11:45 AM	25	Authors' Corner			
	220	11:20 AM - 3:00 PM PDT Exhibitor Meet & Greet			
12:10 PM	170	12:10 PM - 3:00 PM PDT Break (170 min)			
2:00 PM	60	2:00 PM - 3:00 PM PDT Career Fair (60 min)			
3:00 PM	0	Welcome back			
3:00 PM	0	Big Sur	Carmel		
3:00 PM	0	4D- PK	4E- RT	Tutorials	
3:00 PM	5	Session Intro		3:00 - 4:30 PM Tut16 Reliability and Performance Limiting Defects in 4H SiC Metal Oxide Semiconductor Field Effect Transistors: P. Lenahan	3:00 - 4:30 PM Tut17 Cryogenic CMOS: P. Shrestha
3:05 PM	25	4D.1 - Osenbach	4E.1		
3:30 PM	25	4D.2	4E.2		
3:55 PM	25	4D.3	4E.3		
4:20 PM	25	4D.4	4E.4		
4:45 PM	20	Authors' Corner			
5:05 PM	0	WORKSHOPS			
5:05 PM	50	WS1 - Device   WS2 - SSD   WS3 - BEOL   WS4 - SiC   WS5 - Neuromorphic   WS6 - ESD			
5:55 PM	10	Break 10 min			
6:05 PM	50	WS7 - Circuit   WS8 - Em. Memory   WS9 - Automotive   WS10 - GaN   WS11 Rf/mmW/5G			
6:55 PM	0	Closing for day			
CR - Circuit Reliability and Aging		MY - Memory Reliability		5G - RF/mmW/5G Reliability	
EM - Emerging Memory Reliability		MB - Metallization/BEOL Reliability		SE - Soft Error	
EL - ESD and Latchup		NC - Neuromorphic Computing Reliability		SY - System Electronics Reliability	
FA - Failure Analysis		PK - Packaging and 2.5/3D Assembly		TX - Transistors	
GD - Gate/MOL Dielectrics		PI - Process Integration		GaN - Wide-Bandgap Semiconductors (GaN)	
PR - IC Product Reliability		RT - Reliability Testing		SiC - Wide-Bandgap Semiconductors (SiC)	

Wednesday • March 24					
Time - PDT	Duration	Virtual Kick-off Day 4			
8:00 AM	0	Monterey Main Stage			
8:00 AM	45	KN4 - Keynote Speaker - Alessandro Piovaccari, Silicon Labs			
8:45 AM	0	Big Sur	Carmel	Pebble Beach	
8:45 AM	0	5A- TX	5B-EM	5C- SiC	Tutorials
8:45 AM	5	Session Intro			8:45 - 10:15 AM Tut18 EDA Solutions for LU: M. Khazhinsky
8:50 AM	25	5A.1	5B.1 - Han	5C.1 - T. Neyer	
9:15 AM	25	5A.2	5B.2 - Lin	5C.2	
9:40 AM	25	5A.3	5B.3	5C.3	
10:05 AM	25	5A.4	5B.4	5C.4	
10:30 AM	25	5A.5	Authors' Corner	5C.5 - Lauenstein	10:15 - 11:45 AM Tut19 EOS, ESD, Transient, AMR, EIPD, Robustness, Aging - Do All of These Pieces go to the Same Puzzle?: H. Kunz
10:55 AM	25	Authors' Corner		5C.6	
11:20 AM	25			5C.7	
11:45 AM	25			Authors' Corner	
	220	11:20 AM - 3:00 PM PDT Exhibitor Meet & Greet			
12:10 PM	170	12:10 PM - 3:00 PM PDT Break (170 min)			
3:00 PM	0	Welcome back			
3:00 PM	0	Big Sur			
3:00 PM	0	5D-EM	Tutorials		
3:00 PM	5	Session Intro		3:00 - 4:30 PM Tut20 Exploring Relation of ESD and EMC: A. Righter	3:00 - 4:30 PM Tut 21 FinFET Self-heating: Measurements, Concerns and Applications: Z. Chbili
3:05 PM	25	5D.1 - Mikolajick			
3:30 PM	25	5D.2 - Salahuddin			
3:55 PM	25	5D.3			
4:20 PM	25	5D.4			
4:45 PM	25	5D.5		4:30 - 6:00 PM Tut22 Full Chip ESD Verification: M. Etherton	
5:10 PM	20	Authors' Corner			
5:30 PM	120	POSTER SESSION - Live in Gather.Town			
6:00 PM	0				
7:30 PM	0				
7:30 PM	0	Monterey Main Stage			
7:30 PM	60	Prize drawing, wrap-up for IRPS 2021 & announcement of IRPS 2022!!!			
8:30 PM	0	Conference Closes			
Tutorial		Invited/Focus		Keynote	
				Best Papers	
				Posters	