

# Sunday 2004 Tutorials

General Reliability	ESD	High K Dielectric	NBTI
<p>101. Introduction to Reliability</p> <p>V. Reddy Texas Instruments</p>	<p>121-1. Latchup in CMOS Technologies S. Voldman IBM Microelectronics</p> <p>121- 2. ESD in CMOS Technologies S. Voldman IBM Microelectronics</p>	<p>131. Material Properties and Local Phenomena in High K Dielectrics G. Wilk ASM America</p>	<p>141. NBTI: Physics, Materials &amp; Process Issues D. Schroeder Arizona State University</p>
		<p>132. Interfacial Reactions and Stability of High K Dielectrics and Metals R. Wallace University of Texas, Dallas</p>	<p>142. NBTI: Device and Circuit Issues A. Krishnam Texas Instruments</p>
Design Practices			SER
<p>111. Product Reliability Challenges for VLSI Technology R. Bolam IBM Microelectronics</p>	<p>122. ESD Protection Design in CMOS T. Maloney Intel</p>	<p>133. Deposition &amp; Defect Characterization of High K Material J. Conley Sharp</p>	<p>151. Introduction to SER and Testing Challenges R. Velasco TIMA</p>
<p>112. Effects of Reliability Mechanisms on VLSI Circuit Functionality W. Ellis IBM Microelectronics</p>	<p>123. ESD Testing: HBM to vf-TLP H. Gieser Fraunhofer IZM</p>	<p>134. Defect Transport of High K Dielectrics E. Cartier IBM Semiconductor Research and Development Center</p>	<p>152. Software Approaches to Mitigating SERs F. Faure TIMA</p>
			<p>153. Simulation Techniques for FPGA Soft-Errors M. Wirthlin, BYU</p>