6E.1 ***Lateral Profiling of HCI Induced Damage in Ultra-Scaled FinFET Devices with Id-Vd Characteristics***, *Miaomiao Wang, Richard Southwick, James Stathis and Kangguo Cheng, IBM*

This work presents a novel technique for characterizing the lateral trap distribution along the MOSFET channel of hot-carrier created defects. In the past, this kind of characterization entailed extensive computer simulation or complicated analytical modeling that often had limited accuracy. This method utilizes a modified Id-Vd based lateral profiling technique which is capable of extracting the lateral distribution of hot-carrier created defects in ultra-scaled FinFET devices with improved accuracy.