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Title: Flow-Based Computing Presentation

Abstract: At SUNY Polytechnic Institute, we have developed hafnium-oxide RRAM, integrated with 65nm CMOS on 300mm wafer platform. This talk will focus on multi-level resistance states of RRAM arrays, and subsequent implementation of flow-based computing. Flow-based computing is a type of in-memory computing, where the computation is performed using sneak paths in a memory array. The later part of the talk will focus on using sneak paths to compute edge detection on 8x8 1T1R hafnium-oxide arrays.