University of Rochester Department of Electrical and Computer Engineering Colloquia Series

Spintronic & Beyond-CMOS Computing System Integration

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Abstract: Newly available materials are being evaluated as building blocks for next generation beyond-CMOS computing, and numerous devices exhibit logical functionality. The difficulty of cascading exotic nanodevices has, however, impeded large-scale computing system integration. Directly driving one device with another is particularly challenging for spintronic computing, in which electron spin is manipulated for logical switching. Further, it is important to eschew CMOS amplification and control circuits to maximally exploit emerging technologies.

