

Abstract Submitted
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Domain wall pinning in magnetic structures with perpendicular magnetic anisotropy¹ DANIEL GOPMAN, DANIEL BEDAU, New York University, S. PARK, DAFINE RAVELOSONA, Institut d'Electronique Fondamentale, Université Paris Sud, Orsay, France, ANDREW KENT, New York University — An experimental technique has been designed to trap domain walls in ferromagnetic nanostructures. Spin valve nanowires and nanopillars with perpendicularly magnetized free and reference layers were engineered with lithographically defined notches of varying depths and lengths. The influence of notch geometry in domain wall pinning has been compared with intrinsic domain wall pinning sites. Thermally activated jumping between metastable states has been observed under rf excitation along with telegraph noise. Coercive fields have been determined to vary linearly with applied direct currents.

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