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Microscopic Memory in Co/Pd Multilayer Films RUN SU, KEOKI SEU, Physics Department, University of Oregon, SUJOY ROY, Advanced Light Source, Lawrence Berkeley National Laboratory, Berkeley, DANIEL PARKS, Physics Department, University of Oregon, ERIK SHIPTON, ERIC FULLERTON, Electrical and Computer Engineering, University of California, San Diego, STEVE KEVAN, Physics Department, University of Oregon — We report measurements of microscopic memory between speckle patterns of CoPd films exhibiting perpendicular magnetic anisotropy. The speckle patterns were formed by coherent x-ray resonant scattering in a transmission geometry. Return point memory and conjugate point memory were determined as function of applied field. On the length scale probed, the results indicate that the measured memory is a statistical distribution itself, and not a fixed quantity. Memory as a function a scattered wave vector factor was also investigated.

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