

Abstract Submitted
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Local investigations of 2 micrometer permalloy dot array using Magnetic resonance force microscopy. J. KIM, YU. OBUKHOV, D. PELEKHOV, The Ohio State University, T. MEWES, University of Alabama, S. BATRA, Seagate Technologies, Pittsburgh, P.E. WIGEN, S. AN, T. GRAMILA, P.C. HAMMEL, The Ohio State University — Ferromagnetic resonance images of 2 micrometer diameter permalloy dots in an array with a center to center distance of 2.2 micrometer have been microscopically investigated at 4K using magnetic resonance force microscopy. Both local and global ferromagnetic resonance properties of the sample are observed due to the influence of the strong field immediately beneath the micromagnetic probe. Localized spectral changes reveal the dynamics of ferromagnetic resonance of a dot just underneath the tip and neighboring dots in proximity to the tip. The combination of spatial and spectral information is a promising new way to investigate magnetization dynamics using magnetic resonance force microscopy.

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