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Magnetic Particle Imagining with a Cantilever Detector JACOB ALLDREDGE, JOHN MORELAND, NIST — We present a novel method for the measurement of the magnetic moment of single micrometer scale particles as a function of the applied field. Our technique is based on magnetic force microscopy (MFM) with a hard magnetic tip in a uniform opposing field. By moving the tip position and using a simple model we can extract the magnetic properties of isolated particles and precisely measure subsurface particle locations in 3D.

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