Abstract Submitted for the 4CF12 Meeting of The American Physical Society

Proposed investigation of spin dynamics using time-resolved scanning Kerr microscopy¹ CHRISTOPHER FINKELDEI, KRISTEN BUCHANAN, Colorado State University — Investigation of spin dynamics in thin ferromagnetic structures is currently an area of great interest due in part to applications in magnetic storage devices. The study of spin dynamics in such small samples requires techniques that combine high spatial and temporal resolution. Time-resolved scanning Kerr microscopy is one such technique that employs the magneto-optical Kerr effect to investigate spin dynamics in response to excitations in a sample. The setup and optimization of a time-resolved scanning Kerr microscope will be discussed along with plans for future studies including the investigation of spin dynamics in anti-vortex systems.

¹This work was supported by NSF grant number 0907706.

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Date submitted: 20 Sep 2012

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