Ferromagnetic resonance force microscopy investigations of micron size permalloy dots TIM MEWES, GLEB KAKAZEI, VIDYA BHALLAMUDI, RAZVAN CHIRLA, PALASH BANERJEE, YURI OBUKHOV, PHILIP E. WIGEN, P. CHRIS HAMMEL, The Ohio State University, SHARAT BATRA, Seagate Research, Pittsburgh — Low temperature ferromagnetic resonance force microscopy has been used to investigate the dynamic magnetic properties of permalloy disc arrays. Two dimensional scans of the sample at various external magnetic fields reveal the influence of the tip field and the array structure on the FMRFM-signal. Due to the high force sensitivity and the large signal to noise ratio of the ferromagnetic resonance force microscope individual dots with a 1.5 $\mu$m diameter and a center to center distance of 1.8 $\mu$m are readily resolved.