Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

Implementation of NMR pulse sequences for Magnetic Resonance Force Microscopy BRADLEY MOORES, ALEXANDER EICHLER, CHRISTIAN DEGEN, ETH Zurich — Magnetic resonance force microscopy (MRFM) is a scanning microscopy technique that allows measuring nuclear spin densities with a resolution of a few nanometers. Ongoing efforts are aiming at improving this resolution, which might ultimately facilitate non-destructive 3D scans of complex molecules or solid state systems with atomic resolution. Here, we review our current efforts to utilize in an MRFM experiment pulsing techniques borrowed from the nuclear magnetic resonance community. The use of advanced pulsing schemes may improve signal-to-noise ratio, imaging resolution, and allow the investigation of novel phenomena.

Bradley Moores
ETH Zurich

Date submitted: 08 Nov 2013 Electronic form version 1.4