Correction for thermal drift in scanning probe microscopy using polynomial mapping DANIEL R. KATZ, MATTHEW L. TRAWICK, University of Richmond — We present a method for correcting distortion due to thermal drift in scanning probe microscopy images. The strategy involves imaging an area once as one normally would, and then rescanning a narrow portion of the same area with the fast and slow scan axes reversed. The original image can then be corrected via polynomial mapping, where the coefficients of the polynomial mapping function are determinmed by a pointwise comparison of the full and partial images, with the partial image acting as a fiducial reference.

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