

Abstract Submitted
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Dynamic Force Microscopy Using a High-Precision Autocollimator¹ LUCAS EHINGER, WOO-JOONG KIM, Seattle Univ — We present a low-cost tabletop autocollimator setup with sub-microradian sensitivity and demonstrate our setups capabilities using dynamic force microscopy. Our setup extends itself well to many other high precision measurements, including quasistatic electric force microscopy, simple harmonic motion, and investigations of Casimir and Van der Waals interactions. Looking ahead, we plan to use our setup to test the inverse square law of gravity.

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