

Abstract Submitted
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A simple table-top experiment demonstrating mechanical oscillation of a macroscopic object driven by radiation pressure. GRACE JESSENSKY, DOMINIC DAMS, OLEKSIY KHOMENKO, WOO-JOONG KIM, Seattle Univ — We have implemented a Michelson's interferometer to demonstrate the resonant motion of a cm-sized cantilever due to radiation pressure of a laser diode (5 mW or less). The mechanical oscillation is found to be 2.454 (+/-0.003) kHz and is independently confirmed by dynamic force microscopy in which a piezoelectric transducer (PZT) is employed as a mechanical driver. We will discuss other applications, such as a wavelength meter and short-ranged force measurements, based on our simple table-top experiment.

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