

Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Geometry and fluctuation induced (Casimir) forces SHOMEER MUKHOPADHYAY, EHSAN NORUZIFAR, UMAR MOHIDEEN, University of California , Riverside — Since the original prediction of attraction between parallel, perfectly conducting plates by Casimir there has been significant amount of work done in extending the calculations to real materials, finite temperatures and micro or nanostructured geometries. Majority of the experimental work has been carried out in the sphere-plane geometry. In this talk we will present ongoing experimental work on sphere–cylinder and sphere–cone geometries using frequency modulated atomic force microscopy. We will discuss numerical results in the sphere cylinder geometry and the range of validity of the point force approximation(PFA).

Shomeek Mukhopadhyay
University of California , Riverside

Date submitted: 10 Nov 2011

Electronic form version 1.4