

Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

**On the Equilibrium of an Heavy Elastic Cylinder on Horizontal
Nondeformable Plane** LAVRENT SHEKYAN, SERGEY VERLINSKI, Dr. —

The plane static contact problem of the equilibrium of a homogeneous heavy elastic cylinder on fixed non-deformable horizontal plane is discussed. In the vicinity of the initial contact between these bodies, there is some contact area, which covers the central angle and which are unknown contact stresses. The elastic equilibrium of a cylinder under the influence of its gravity and some unknown contact stress is discussed. To determine the distribution of contact stress, the size of the contact area of the cylinder and immersion in the horizontal plane is required.

Sergey Verlinski
Dr.

Date submitted: 13 Nov 2011

Electronic form version 1.4