



**Prof. Boris Botvinnik (botvinn@uoregon.edu)
University of Oregon, USA.**

Boris Botvinnik received his PhD from the Sobolev Institute of Mathematics (Novosibirsk) of the Russian Academy of Sciences. His research focus is on algebraic topology and differential geometry. He is a professor of Mathematics at the Mathematics department of the University of Oregon in the United States.

Talk Title and Abstract

Curvature and topology of manifolds: "old and new results"

It is well-known that the curvature of a Riemannian metric on a manifold is intimately related to its topology. We will concentrate our discussion on the scalar and Ricci curvatures as well as other "intermediated" curvatures. We will discuss classical and very new ideas and results. In particular, the goal here is to show deep interaction between conformal geometry, analysis and classical differential geometry on one side and homotopy and surgery theory on the other side.