
VLADMIR SICCA, McGill University

A prescribed scalar and boundary mean curvature problem on compact manifolds with boundary

In this talk I will present our recent result in the problem of finding a metric in a given conformal class with prescribed nonpositive scalar curvature and nonpositive boundary mean curvature, on a compact manifold with boundary. We established a necessary and sufficient condition in terms of a conformal invariant that measures the zero set of the target curvatures, which we call the relative Yamabe invariant of the set. (This is a joint work with Gantumur Tsogtgerel).