

1134-53-209

Lihan Wang* (lihan.wang@uconn.edu). *Symplectic Boundary Conditions and Cohomologies*. Preliminary report.

In this talk, we study the symplectic manifolds with boundary from an analytic point of view. New types of conditions are introduced on differential forms, which are called symplectic boundary conditions. These conditions help us to build elliptic systems for special Laplacians. As a result, new type relative cohomologies can be well defined, which corresponds to the cohomology introduced by Tseng and Yau. We will discuss interesting properties of these relative cohomologies. (Received September 05, 2017)