

BOSTON UNIVERSITY GEOMETRY SEMINAR

Characteristic classes and pseudodifferential operators of degree zero.

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Wednesday Feb. 23, 4-5 pm in MCS 149
Tea 3:45-4 in MCS 153

Abstract: The structure group for some infinite dimensional manifolds, such as the space of maps between manifolds, is a gauge group \mathcal{G} . Certain natural connections on these bundles force us to extend the structure group to a group Ψ_0^* of invertible pseudodifferential operators of order zero. There is a theory of characteristic classes for these pseudodifferential operator bundles, and these classes detect elements in the cohomology of the classifying spaces $B\mathcal{G}$ and $B\Psi_0^*$.