

Local-to-global properties and bounded cohomology

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Abstract: In this talk, I will discuss some recent results in connection with two well-known theorems about bounded cohomology: the Vanishing/Covering Theorems and the Mapping Theorem. In the first case, I will sketch an approach based on the homotopy-theoretic properties of the comparison map from bounded cohomology to singular cohomology (viewed as a natural map of cochain complexes). In the second case, based on joint work with Marco Moraschini, I will present some characterizations of the maps which induce isomorphisms in bounded cohomology in terms of properties of the homotopy fiber.