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Title: Overconvergent rings and cyclic homology

Abstract: I will use the framework of bornologies to isolate a subcategory of complete "topological" algebras on which K-theory and its tracial approximations have good properties from the viewpoint of noncommutative geometry. These algebras analogous to Scholze-Clausen's recent definition of bounded (commutative) rings in the condensed setup. In the non-archimedean setting, these algebras allow for a functorial definition and a noncommutative version of rigid cohomology. Parts of this project are based on joint work with Ralf Meyer and Guillermo Cortiñas.