Henning Krause, Universität Paderborn

Local cohomology and support for triangulated categories

Abstract: This talk presents some joint work with Dave Benson and Srikanth Iyengar. We propose a new method for defining a notion of support for objects in any compactly generated triangulated category admitting small coproducts. This approach is based on a construction of local cohomology functors on triangulated categories, with respect to a central ring of operators. Suitably specialized one recovers, for example, Neeman's theory for commutative noetherian rings, the theory of Avramov and Buchweitz for complete intersection local rings, and varieties for representations of finite groups, according to Benson, Carlson, and Rickard.

See arXiv:math.KT/0702610 for a written account.

Contact address: `hkrause@math.uni-paderborn.de`