

**Prof. Dr. Frank Neumann (Leicester)**

***Hochschild cohomology of dg-categories and spectral sequences***

The Hochschild cohomology of a differential graded algebra, or a differential graded category, admits a natural map to the graded center of its homology category: the characteristic homomorphism. We interpret it as an edge homomorphism in a spectral sequence. This gives a conceptual explanation of the failure of the characteristic homomorphism to be injective or surjective, in general. To illustrate this, we discuss coherent sheaves over algebraic curves, as well as examples related to free loop spaces. Joint work with M. Szymik (Trondheim).