Some numerical invariants for gentle algebras and possible generalizations

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Homological methods provide important derived invariants of the structure of associative algebras. For gentle algebras complete computations can be performed. We are particularly interested in the description of the structure of the Hochschild cohomology ring of a gentle algebra both as a graded commutative algebra and as Gerstenhaber algebra. We will concentrate on the data that is obtained from the Lie algebra structure of the first Hochschild cohomology space.

This is a joint work with Cristian Chaparro Acosta, Sibylle Schroll and Mariano Suárez-Álvarez.