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Daiva Pucinskaite* (dpucinskaite@fau.edu), Mathematical Sciences, 777 Glades Road, Boca Raton, FL 33431. *Quasi-Hereditary Structures in Representation Theory*.

Quasi-hereditary algebras appear in many areas of representation theory. For example in the theory of cluster algebras Geiss, Leclerc, Schröer study the quasi-hereditary algebras which occur as endomorphism algebras of certain maximal rigid modules over a preprojective algebra. My talk is about transfer results which utilize quasi-hereditary structures: Well known examples include the Schur-Weyl duality, which connects Schur algebras and algebras of symmetric groups, or 'Soergel Struktursatz', which shows the connection between the representation theories of Lie algebras and of associative algebras. Based on 'Soergel Struktursatz' the algebras of blocks of the Bernstein-Gelfand-Gelfand category $\mathcal{O}(\mathfrak{g})$ of a simple Lie algebra \mathfrak{g} are related to subalgebras of the coinvariant algebra of the Weyl group of \mathfrak{g} . I want to discuss a generalisation of 'Soergel Struktursatz' which addresses a well-known question by Humphreys on how the coinvariant algebra depends on the Bruhat order. (Received September 16, 2014)