The g-vector fan of a tame algebra.

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Two-term complexes of projective modules have been much studied recently, in particular with respect to their links with tau-tilting theory and additive categorification of cluster algebras. The g-vector of such a complex is its class in the Grothendieck group of the category of complexes of projective modules. These 2-term complexes form an extriangulated category in the sense of Nakaoka and Palu. Moreover, the g-vectors of those complexes that are rigid form a simplicial fan.

In this talk, I will present a result obtained in a recent joint work with Toshiya Yurikusa (Tohoku University): for a tame algebra, the fan of g-vectors of rigid 2-term complexes of projectives is dense. Algebras with this properties are said to be "g-tame". I will introduce the main tools in the proof of this result, including a variation on the theme of twist functors of Seidel and Thomas.