

Introduction

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These are the supporting materials for our paper titled *On τ -tilting finiteness of blocks of Schur algebras*, see [arXiv: 1111.11223](#), in which we are trying to give a complete list of τ -tilting finite Schur algebras. To understand the list, one needs some bound quiver algebras A and the numbers $\#s\tau\text{-tilt } A$, as displayed below,

A	\mathbb{F}	\mathcal{A}_2	\mathcal{A}_3	\mathcal{D}_3	\mathcal{R}_4	\mathcal{H}_4	\mathcal{D}_4	\mathcal{K}_4	\mathcal{U}_4	\mathcal{M}_4	\mathcal{L}_5
$\#s\tau\text{-tilt } A$	2	6	20	28	88	96	112	136	136	152	1656

In this webpage, we give a complete list of g -vectors for each bound quiver algebra in the above table, in order to illustrate the number $\#s\tau\text{-tilt } A$.

We may fix some notations as follows. Let A be a finite-dimensional algebra over an algebraically closed field \mathbb{F} . We can determine the g -vectors for all indecomposable two-term presilting complexes in $\mathbf{K}^b(\text{proj } A)$, such that the g -vectors of two-term silting complexes can be displayed as matrixes, where the entries are given by the former ones. We give an example here.

Example. Let $A = \mathbb{F}(1 \xrightleftharpoons[\beta]{\alpha} 2) / \langle \alpha\beta, \beta\alpha \rangle$. Then, the Hasse quiver $\mathcal{H}(2\text{-silt } A)$ is

$$\begin{array}{ccccc}
 & & \begin{bmatrix} 0 \rightarrow P_1 \\ \oplus \\ P_2 \xrightarrow{\alpha} P_1 \end{bmatrix} & \longrightarrow & \begin{bmatrix} P_2 \rightarrow 0 \\ \oplus \\ P_2 \xrightarrow{\alpha} P_1 \end{bmatrix} \\
 & \nearrow & & & \searrow \\
 \begin{bmatrix} 0 \rightarrow P_1 \\ \oplus \\ 0 \rightarrow P_2 \end{bmatrix} & & & & \begin{bmatrix} P_1 \rightarrow 0 \\ \oplus \\ P_2 \rightarrow 0 \end{bmatrix} \\
 & \searrow & & & \nearrow \\
 & & \begin{bmatrix} P_1 \xrightarrow{\beta} P_2 \\ \oplus \\ 0 \rightarrow P_2 \end{bmatrix} & \longrightarrow & \begin{bmatrix} P_1 \xrightarrow{\beta} P_2 \\ \oplus \\ P_1 \rightarrow 0 \end{bmatrix}
 \end{array}$$

We deduce that the complete list of g -vectors for A is

$$\begin{array}{cccccc}
 \begin{bmatrix} 1, 0 \\ 0, 1 \end{bmatrix} & \begin{bmatrix} -1, 0 \\ 0, -1 \end{bmatrix} & \begin{bmatrix} 1, 0 \\ 1, -1 \end{bmatrix} & \begin{bmatrix} -1, 1 \\ 0, 1 \end{bmatrix} & \begin{bmatrix} 1, -1 \\ 0, -1 \end{bmatrix} & \begin{bmatrix} -1, 1 \\ -1, 0 \end{bmatrix}
 \end{array}$$