Introduction

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These are the supporting materials for our paper tilted *On τ-tilting finiteness of blocks of Schur algebras*, see arXiv: 2110.02000, 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 $\#\mathsf{s}\tau\text{-}\mathsf{tilt}\, A$, as displayed below,

A	$\mathbb{F}$	$\mathcal{A}_2$	$\mathcal{A}_3$	$\mathcal{D}_3$	$\mathcal{R}_4$	$\mathcal{H}_4$	$\mathcal{D}_4$	$\mathcal{K}_4$	$\mathcal{U}_4$	$\mathcal{M}_4$	$\mathcal{L}_5$
$\#\mathsf{s}\tau\text{-}\mathsf{tilt}\, A$	2	6	20	28	88	96	114	136	136	152	1656

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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 $\#\mathsf{s}\tau\text{-}\mathsf{tilt}\, A$.

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 $\mathsf{K}^{\mathsf{b}}(\mathsf{proj}\, A)$, such that the g-vectors of two-term silting complexes can be displayed as the so-called g-matrices, where the entries are given by the former ones. We give an example here.

Example. Let $A = \mathbb{F}(\ 1 \underset{\beta}{\overset{\alpha}{\rightleftarrows}} 2\ )/ < \alpha\beta, \beta\alpha >$. Then, the Hasse quiver $\mathcal{H}(\mathsf{2\text{-}silt}\, A)$ is

$$\begin{tikzcd}
 & \begin{bmatrix} 0 \to P_1 \\ \oplus \\ P_2 \xrightarrow{\alpha} P_1 \end{bmatrix} \arrow[r] & \begin{bmatrix} P_2 \to 0 \\ \oplus \\ P_2 \xrightarrow{\alpha} P_1 \end{bmatrix} \arrow[dr] & \\
\begin{bmatrix} 0 \to P_1 \\ \oplus \\ 0 \to P_2 \end{bmatrix} \arrow[ur] \arrow[dr] & & & \begin{bmatrix} P_1 \to 0 \\ \oplus \\ P_2 \to 0 \end{bmatrix} \\
 & \begin{bmatrix} P_1 \xrightarrow{\beta} P_2 \\ \oplus \\ 0 \to P_2 \end{bmatrix} \arrow[r] & \begin{bmatrix} P_1 \xrightarrow{\beta} P_2 \\ \oplus \\ P_1 \to 0 \end{bmatrix} \arrow[ur] &
\end{tikzcd}.$$

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

$$\begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \begin{pmatrix} -1 & 0 \\ 0 & -1 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 1 & -1 \end{pmatrix} \begin{pmatrix} -1 & 1 \\ 0 & 1 \end{pmatrix} \begin{pmatrix} 1 & -1 \\ 0 & -1 \end{pmatrix} \begin{pmatrix} -1 & 1 \\ -1 & 0 \end{pmatrix}.$$