

**Mathematics > Representation Theory**
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# $\tau$ -exceptional sequences

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We introduce the notions of  $\tau$ -exceptional and signed  $\tau$ -exceptional sequences for any finite dimensional algebra. We prove that for a fixed algebra of rank  $n$ , and for any positive integer  $t \leq n$ , there is a bijection between the set of signed  $\tau$ -exceptional sequences of length  $t$ , and (basic) ordered support  $\tau$ -rigid objects with  $t$  indecomposable direct summands. If the algebra is hereditary, our notions coincide with exceptional and signed exceptional sequences. The latter were recently introduced by Igusa and Todorov, who constructed a similar bijection in the hereditary setting.

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