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## **Schofield induction for sheaves on weighted projective lines**

ABSTRACT: This is a report on joint work with Hagen Meltzer. We consider the category of coherent sheaves on a weighted projective line in the sense of Geigle and Lenzing. We show that each exceptional sheaf  $M$  of rank greater than one can be obtained from exceptional sheaves  $X, Y$  of less ranks by Schofield induction. More precisely, for each exceptional sheaf  $M$  there is a short exact sequence with the first term  $Y$  to power  $v$ , the middle term  $M$  and the last term  $X$  to power  $u$  such given by a dimension vector of an exceptional representation of a generalized Kronecker algebra with  $n$  arrows, where  $n$  is dimension of the corresponding extension space. Schofield induction has been applied before by Ringel in order to describe exceptional modules over path algebras of quivers.