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*On rigid sheaves over  $\mathbb{P}^n$ .*

I will talk on joint work with Dieter Happel. We prove that if  $E$  is an indecomposable coherent sheaf over the projective  $n$ -space such that  $\text{Ext}^1(E, E) = 0$ , then  $E$  has a trivial endomorphism ring. This generalizes a result of Drézet for rigid sheaves over  $\mathbb{P}^2$ . The proof involves reduction to rigid modules over a finite dimensional algebra of Loewy length 2 using the Koszul algebra structure of the polynomial ring.