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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.