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*Reconstruction of monoidal categories from their invariants*

A monoidal (or tensor) category possess many different invariants; some of them might be decisive and the others might be not. In this talk, we present two decisive invariants of a monoidal category  $\mathcal{C}$ : the representation (or the Green) ring  $r(\mathcal{C})$  and the Auslander algebra  $A(\mathcal{C})$ . We show that a Krull-Schmidt and abelian monoidal category of finite rank over an algebraically closed field  $\mathbb{F}$  can be reconstructed back from its Green ring, the Auslander algebra and the associator.