Title: Computing singularities of the spectra of representation rings of finite groups

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Let G be a finite group of order n, and ξ an n-th primitive root of unity. Consider the affine scheme $C := \mathrm{Spec}(\mathbb{Z}[\xi] \otimes_{\mathbb{Z}} R(G))$, where $R(G)$ is the representation ring of G. We study the fibers of the formal tangent sheaf of C by computing their dimension and also finding (and measuring) the singularities of C. We present explicit computations for noncommutative groups of small order, and develop practical methods to compute these invariants for an arbitrary finite group.

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