

Geometry, Physics, and Representation Theory  
Northeastern University

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## **Resolutions with Conical Slices and Descent for Certain Brauer Group Classes**

### **Abstract**

Classical Luna's slice theorem tells that if you have a conical resolution of singularities then any non-central point of the base admits an étale slice to the orbit of the  $G_m$ -action. Resolution with conical slices is (roughly speaking) a resolution where for any point of the base one can find the slice itself to be conical. I will talk about <https://arxiv.org/abs/1611.08340> joint work with R.Travkin where we prove the descent for Brauer group classes of certain central reductions of the algebra of differential operators in characteristic  $p$  for a generic reduction of a resolution with conical slices. In the case when the resolution is symplectic this question is related to the construction of non-commutative resolutions of the corresponding singularity and derived equivalences between them.