Jonas T Hartwig*, jth@iastate.edu. Weight modules over noncommutative Kleinian fiber products.

I will present a classification of all irreducible weight modules over a family of noncommutative algebras. On the one hand, these algebras arise as biparametric deformations of fiber products of two Kleinian singularities of type A. On the other hand, they are prototypical examples of twisted generalized Weyl algebras (for which the problem of classifying irreducible weight modules is still open in general). Lastly, I will point out several intriguing connections to higher spin 6-vertex models with semi-periodic boundary conditions. (Received July 18, 2016)