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**William Graham** and **Amber Russell\*** (arusell@math.uga.edu). *Staggered Sheaves and  $K$ -Theory of Toric Varieties*. Preliminary report.

Staggered sheaves were first defined by Achar in 2009 as a generalization of the perverse coherent sheaves of Bezrukavnikov and Deligne. In 2010, Treumann described a way to define these objects for toric varieties. Then, in a joint paper appearing in 2012, Achar and Treumann defined a concept of purity for staggered sheaves similar to Deligne's for perverse sheaves. They further used their purity results to give a basis in  $K$ -theory for smooth toric varieties which exhibits a particular positivity condition. Recently, William Graham and I have been exploring this basis further, and the results of our project will be the focus of my talk. (Received July 28, 2014)