



# COLLOQUIUM

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**Grothendieck rings of towers of generalized Weyl algebras**

**Friday Apr. 26 at 2:30pm in RT 1516**

*Bio:* Daniele Rosso grew up in Italy and did his undergraduate studies at the University of Bologna. He moved to the United States to pursue a PhD in Mathematics at the University of Chicago, under the supervision of Victor Ginzburg. After graduating in 2013, he had temporary positions at the University of Ottawa, the Centre de Recherches Mathématiques in Montréal, and the University of California Riverside. He is currently an Associate Professor of Mathematics at Indiana University Northwest.

*Abstract:* Generalized Weyl algebras (GWAs) are an important class of algebras that include as special cases many algebras that are interesting for ring theory and representation theory. Even though they are not naturally Hopf algebras, the tensor product of a weight module for a GWA with a weight module for another GWA gives a weight module over a third GWA. As a consequence we get a ring structure on the sum of Grothendieck groups of the categories of weight modules over a tower of GWAs. I will talk about some results on describing this ring structure in various settings. This is joint work with J. T. Hartwig (Iowa State University).

**Refreshments will be served in RT 1517 at 2:10pm**