

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, September 12
3:00 – 4:00 PM
Maria Sanford, Room 101

THE N-STABLE CATEGORY

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Abstract: A well-known theorem of Buchweitz provides equivalences between three categories: the stable category of projective modules over a Gorenstein algebra, the homotopy category of acyclic projective complexes, and the singularity category. The latter two categories generalize easily to the setting of N-complexes; we identify a candidate for the "N-stable" category and adapt Buchweitz's theorem to the setting of N-complexes over a Frobenius exact abelian category. We will also discuss how the N-stable category can be used to construct fractional Calabi-Yau categories. Prior familiarity with N-complexes will not be assumed. Based on a joint work with Vanessa Miemietz.

To join us online use the following link: <https://ccsu.webex.com/meet/gotchev>

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<http://mathcolloquium.sites.ccsu.edu/>