

# ALGEBRA SEMINAR

## *Subvarieties and Descent*

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ABSTRACT: Let  $X$  be a variety and  $Z$  be a subvariety. Can one glue vector bundles on  $X \setminus Z$  with vector bundles on some small neighborhood of  $Z$  to get vector bundles on  $X$ ? We survey two recent results on the process of gluing a vector bundle on the complement of a subvariety with a vector bundle on some 'small' neighborhood of the subvariety. This is joint work. The first project is with M. Temkin and is about gluing categories of coherent sheaves over the category of coherent sheaves on a Berkovich analytic space. The second project is with J. Block and is about gluing dg enhancements of the derived category of coherent sheaves. I will try to explain the terminology that I used above!

MONDAY, JANUARY 14, 2013  
1:40 – 2:30 PM  
ROOM 617, WACHMAN HALL  
DEPARTMENT OF MATHEMATICS