

Kempner Colloquium

# REVISITING RELATIVE DIMENSION OF MAPS OF VARIETIES

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When one algebraic variety maps to another, it is natural to compare their dimensions. In some cases (for instance, when the former is a bundle over the latter), it is clear how to do this, but in general the situation can be rather subtle. Via a series of concrete examples, we explore what it should mean for the relative dimension to be at least a certain number. The ultimate definition turns out to be very well behaved: it has good formal properties, arises frequently in practice, and has strong consequences. We will also sketch our motivation, which lies obtaining deformations via dimension counts.

April 29, 2013

4:00 p.m.

MATH 350