

“There is not a published paper that doesn’t have a mistake, except for Serre’s papers.”  
—Anonymous (but I’ll tell you if you ask)

## The Trivial Notions Seminar Proudly Announces

How do we get our hands on vector bundles?

A talk by  
Morgan Opie

### **Abstract**

In homotopy theory and algebraic geometry, we often like to classify objects abstractly. For example, we can homotopically classify complex line bundles using the first Chern class. However, depending on your classifications methods, knowing “how many” objects of a given type exist might not give you explicit ways of thinking about them.

If I were going to be artistic, I’d say something like “classification via algebraic invariants allows you to see the SSN of vector bundles, but you still don’t know what they look like.” Or something. But don’t think about that analogy too hard.

Anyhow, in this talk I’ll discuss some algebraic and homotopical methods for producing living, breathing vector bundles on complex projective spaces. Who knows, maybe we’ll actually see a real, live (complex) vector bundle.

Friday, March 5<sup>th</sup>, at 12 noon