MAS439 Lecture 18
Categories

December 7th

Why categories?

Viewpoint:

We've been implicitly thinking "categorically" by using Universal properties, and thinking about $\mathbb{C}[x]$ and $\mathbb{C}[x,y]/I$ in terms of maps out of them.

Language:

We've established a dictionary between geometry and algebra, taking algebraic subsets to their coordinate ring, and maps between spaces to maps between rings. The dictionary can seem a little unwieldy and abstract at first, but it's actually a common type occurence, and category theory is language invented to discuss just such things,