

Introduction to Commutative Algebra

and affine algebraic varieties

Amal M

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- 2 Algebraic Variety
- 3 Prime and Maximal Spectrum
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Overview

Paraphrase the intro from the project report

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Algebraic Variety

You still don't understand the connection very well. So you got to revise first before you can write this. Ask the question. How is every algebraic variety a nilpotent free k -algebra? How is $\text{Spec}(A)$ the solution set of polynomials? How is $\text{Spec}(A)$ a variety? You only shown that it can have a Topology. How is it an algebraic variety? Reread and understand the dictionary in Vakil's notes in full.

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Prime Ideal

How can you make this more intuitive?

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