

# Abstract Seminar Activity

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by:  
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## Abstract

### An introduction to Arithmetic schemes

The theory of schemes is the foundation for algebraic geometry that allows a grand unification with the field of number theory and has made possible astonishing results such as the Weil and the Mordell conjecture.

In this talk we will give a brief introduction on the theory of schemes, present some relevant examples that draw some analogy with its algebraic geometry correspondence counterpart. Among other things we will emphasise a bit more on one particular set of examples the so-called arithmetic schemes. Arithmetic schemes arise primarily in the context of number theory. Our main exercise, will be to present some hint of the amazing unification that schemes allow between the arithmetic and the geometric point of view.([1], 3, [2])

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## References

- [1] David Eisenbud and Joe Harris. *The geometry of schemes*, volume 197. Springer Science & Business Media, 2006.
- [2] Robin Hartshorne. *Algebraic geometry*, volume 52. Springer Science & Business Media, 2013.
- [3] Daniel A Marcus and Emanuele Sacco. *Number fields*, volume 1995. Springer, 1977.