

MATH-662

Perfectoid spaces

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Cursus	Sem.	Type
Mathematics		Obl.

Language of teaching	English
Credits	3
Session	
Exam	Oral presentation
Workload	90h
Hours	42
Lecture	28
Project	14
Number of positions	

Frequency

Only this year

Remark

Fall 2024

Summary

The course is about defining perfectoid spaces, and possibly presenting some applications.

Content

Possible contents:

- 1) valuations, the Riemann-Zairski space of a field, the valuation spectrum of a ring
- 2) topological algebra
- 3) adic spaces
- 4) perfectoid algebras
- 5) perfectoid spaces
- 6) tilt of a perfectoid space

Learning Prerequisites**Required courses**

Rings and modules, Algebraic geometry I - curves, Algebraic geometry II - schemes, Algebraic geometry III

Resources**Bibliography**

Wedhorn's and Morel's notes, Scholze: Perfectoid spaces

Ressources en bibliothèque

- [Perfectoid spaces / Scholze](#)

Références suggérées par la bibliothèque

- [Adic Spaces / Morel](#)
- [Adic Spaces / Wedhorn](#)