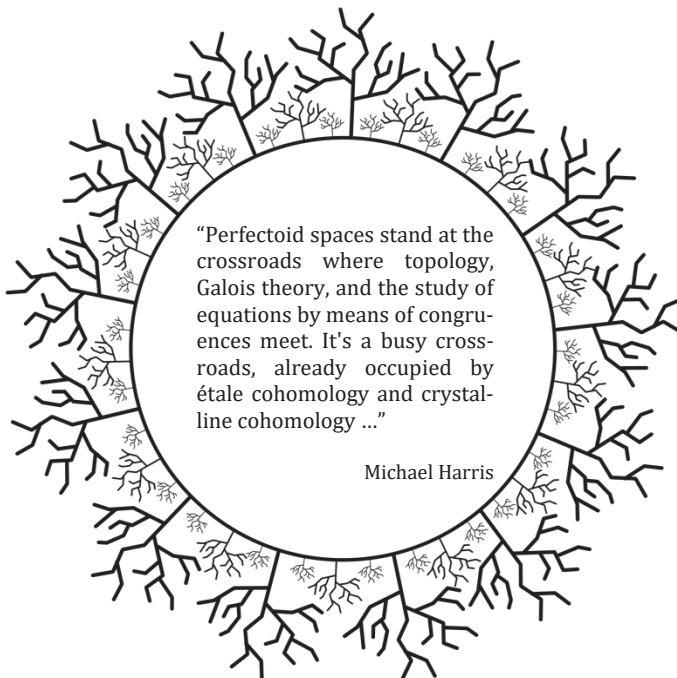


PERFECTOID SPACES

In some algebro-geometric problems, there are strong methodological contrasts between characteristic zero, positive characteristic and mixed characteristic. Perfectoid geometry, established by Peter Scholze in 2011, provides a rich source of techniques and a powerful framework for making some of those challenging problems achievable. This theory has already proved essential in the proof of certain special (but important) cases of Deligne's weight-monodromy conjecture and many other hard problems in arithmetic geometry, algebraic geometry and commutative algebra.

"The theory of perfectoid spaces was initially designed as a means of transporting information available over $\mathbb{F}_p((t))$ to \mathbb{Q}_p , but has since found a number of independent applications."

Peter Scholze



The purpose of this course is to study the foundations of the theory of perfectoid spaces. Time permitting, we will also discuss the role of the theory in recent developments in commutative algebra and algebraic geometry.

ارائه دهنده: راضیه احمدیان

(با راهنمایی دکتر سید محمد هادی هدایت زاده)

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