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Zoom for Thought

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What are perfectoid spaces good for? The Direct Summand Conjecture

Abstract:

Do you ever hear your number theorist friends say the word "perfectoid"? Does it make you feel confused? Afraid? If you have some vague idea that perfectoid spaces are an important concept, but have no idea what purpose they serve, then this talk is for you. We will attempt to describe how the theory of perfectoid spaces can be used to prove a simple statement in ring theory, which a priori has nothing to do with perfectoid spaces. We will assume familiarity with some basic notions regarding rings and modules at the level of Math 200, but we will do our best to strip away all unnecessary jargon and communicate plainly the role of perfectoid geometry in the proof.

January 26, 2022

2:00 PM

**Please see email with subject "Grad Student Seminar
Information."**
