

## DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

## Colloquium

HOW MUCH DOES A VARIETY IN CHARACTERISTIC p KNOW ABOUT ITS LIFTINGS?

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## **ABSTRACT:**

This talk is a gentle introduction to algebraic/arithmetic geometry where characteristic 0 and characteristic p geometry interplay with each other. We will explain the meaning of the question in the title, then present some results obtained in the past. In the end, we will say a few words on why/how the said question is related to the study of properties of the prismatic cohomology theory of Bhatt-Morrow-Scholze and Bhatt-Scholze.

 $4-5\mathrm{pm}$  Wednesday, October 04, 2023 Room 204, Smith Hall