

## ***PRISMATIC COHOMOLOGY AND HOPF ALGEBROIDS***

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**Time: Tue, Apr 28th, 15:00 - 15:30**

**Venue: Room 106, SCMS**

### **Abstract:**

The prismatic cohomology, introduced first by Bhatt and Scholze, is a cohomology theory for  $p$ -adic formal schemes which can be specialized to many other cohomology theories.

In this talk, following the idea of prismaticization, we will briefly explain the method of studying prismatic cohomology by using suitable Hopf algebroids. Then we apply this method to study prismatic cohomology of polynomial rings: by considering certain  $q$ -de Rham prisms and corresponding Hopf algebroids, we obtain explicit complexes (with  $q$ -de Rham operators) computing prismatic cohomology.

This talk is based on joint work with Ruochuan Liu and Guozhen Wang.