TOPOLOGICAL HOCHSCHILD HOMOLOGY AND PRISMATIC COHOMOLOGY

Speaker: Jingbang Guo
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Time：Fri, Sep. 15, 16:00-17:30

Venue: Room 106, SCMS

Abstract: The theory of prismatic cohomology is a universal p-adic cohomology theory, in the sense that it specializes to the classical p-adic cohomology theories such as the de Rham cohomology and the p-adic etale cohomology. Originally, this universal p-adic cohomology theory was expected by the calculation of topological Hochschild homology for (integral) perfectoid rings. In this seminar, the basic ideas of prismatic cohomology and topological Hochschild homology will be introduced, and between which the delicate interconnection will be emphasized. Especially the general theory of relative topological Hochschild homology and the phenomena of Bokstedt periodicity, which might benefit the calculation of (absolute) topological cyclic homology through the descent technique, are to be discussed.