

Séminaire de théorie des nombres

Le 06 février 2023 à 14h (PRG)

The Hochschild-Kostant-Rosenberg Theorem for logarithmic schemes, and potential applications for p-adic Hodge theory

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Résumé : I will give a definition of a certain category of "log quasi-coherent" sheaves on a logarithmic variety which uses Falting's "almost mathematics" and which has the property that in characteristic zero, log differential forms and log polyvector fields are the Hochschild homology (appropriately understood) and Hochschild cohomology, respectively, of this category. This implies a certain "noncommutative Hodge theory" associated to a log variety in mixed characteristic. I will also explain (if there is time left over) a relationship of the proof of the main results to mirror symmetry.