P-ADIC NAGAI CONJECTURE FOR HYPER-KÄHLER VARIETIES

Speaker: Haitao Zou
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Time: Fri., Feb.14th, 14:00-15:00

Venue: Room 406

Abstract:

For one parameter degenerations of a complex hyperkähler manifold, Nagai proposed a conjectural formula for the unipotency indices of the local monodromy operators on the full cohomology ring. This conjecture is confirmed for hyperkähler manifolds with all known deformation types. In this talk, I will introduce the p-adic Nagai conjecture over local fields and prove this for all known deformation types. As an application, we can get the ell-independence of being cohomologically potentially good reduction for hyper-Kähler varieties.