

Northeastern University



Mathematics Department

Geometry, Physics, and Representation Theory Seminar

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Thursday, April 12, 2:50-3:50 pm, Lake Hall 509

Canonical paths and monodromy

Abstract

Let K be a local field (archimedean or non-archimedean) and X a normal variety over K . Then, in several settings, there exist canonical linear combinations of paths between any two points in X . I'll explain several applications of this observation: (1) a monodromy-free theory of iterated integration on complex varieties, (2) some structural results about Galois actions on pro- ℓ geometric fundamental groups of varieties over p -adic local fields, for p different from ℓ , and (3) results on the representation theory of arithmetic fundamental groups.