



Leibniz  
Universität  
Hannover

# Oberseminar Institut für Algebraische Geometrie

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## **Big monodromy for families of subvarieties on abelian varieties.**

Lawrence and Sawin have shown that up to translation, every abelian variety over a number field contains only finitely many smooth ample hypersurfaces with given fundamental class and good reduction outside a given finite set of primes. A crucial ingredient in their work is a purely geometric statement: Every non-isotrivial family of smooth hypersurfaces on an abelian variety has big monodromy when twisted by a generic local system of rank one. In this talk I will explain how to go beyond hypersurfaces: The same big monodromy result also holds for subvarieties of high codimension on abelian varieties. The proof uses a combination of geometric arguments and representation theory to see that the Tannaka groups of perverse intersection complexes on such subvarieties are big. This is joint work with Ariyan Javanpeykar, Christian Lehn and Marco Maculan.

**Donnerstag, 01.12.2022,**

**16:30-17:30, Raum B302**

**Leibniz Universität Hannover**

**Alle Interessierten sind herzlich eingeladen.**