

Abstract

Oberwolfach Workshop:

Enveloping Algebras and Geometric Representation Theory

Dates:

31 October - 6 November 2021 (Code: 2144)

Organizers:

Iain Gordon, Edinburgh

Bernard Leclerc, Caen

Michaela Varagnolo, Cergy-Pontoise

The aim of the proposed meeting is to bring together experts investigating Lie theory from the geometric, algebraic and combinatorial points of view. We propose to focus the meeting in 2021 on new and ongoing developments in

- Categorification, and particularly the Hecke category, categories of modules over quiver Hecke algebras, and related cluster structures;
- Cohomological Hall algebras, their relations with Yangians, cohomology of moduli spaces of stable sheaves, and higher dimensional situations;
- Coulomb branch varieties, their place in the theory of symplectic singularities, their deformation quantizations and generally their connections with geometric representation theory.

We will also be interested in additional directions, including quantum groups, cluster structures, crystals and categorification in the K-theory context.