

Geometric realisation of hypergeometric motives

Giulia GUGIATTI (Univeristy of Padua, Italy)

Abstract: Solutions to univariate hypergeometric operators with rational parameters have a geometric origin: they arise from the variation of cohomology of the fibers of a morphism. In this talk, I will focus on the geometric realisation of hypergeometric local systems defined over the rationals via certain morphisms known as canonical models. I will also outline dimension reduction techniques to construct geometric realisations of the correct weight. The ideas discussed in the talk can be used as a source to build mirrors to Fano varieties beyond the known constructions.