Azat Miftakhov Days

Organized by the Azat Miftakhov committee

Tuesday July 5, 2022 from 4pm to 7pm Central European Summer Time (UTC+2)

Online - Registration is mandatory by filling out the form [here](.).

4 pm *Opening remarks*

4:10 pm [Alexander Petrov](.) (Harvard)
Title: *Representations of Galois groups and families of algebraic varieties*
Abstract: One of the central methods of arithmetic geometry is the study of algebraic varieties through the action of the Galois group on topological invariants of varieties such as cohomology and homotopy groups. An important question in this area is the problem of classification of representations of Galois groups that arise from cohomology of algebraic varieties. I will exhibit some of the known results in this direction and describe how working with families of algebraic varieties rather than a single variety leads to a substantially different behavior of the objects in question.

5:10 pm Ilya Dumanski (MIT)
Title: *Schubert varieties in the Beilinson-Drinfeld Grassmannian*
Abstract: The Borel-Weil theorem states that the space of sections of a certain line bundle on the flag variety is isomorphic to the irreducible representation of the corresponding reductive group. The classical result of Demazure describes the restriction of sections to the Schubert subvarieties. These results have analogs for the affine Grassmannian. In the talk, we will recall these constructions and describe their analog for the Beilinson-Drinfeld Grassmannian. The representations, arising in this situation, can be considered as an interesting generalization of global Weyl modules over the current algebra.

6:10 pm [Slava Rychkov](.) (IHES)
Title: *"Bootstrap" method in physics and mathematics*
Abstract: In the last 10-15 years, "bootstrap" was applied to problems as disparate as critical exponents of second-order phase transitions, scattering of elementary particles, chaotic dynamical systems, and Laplacian spectra on hyperbolic manifolds. This produced many new computer-assisted bounds on various quantities of interest. I will explain common features of these problems, and what is this bootstrap method which applies to all of them.

Wednesday July 6, 2022 from 5pm to 7pm Central European Summer Time (UTC+2)

Hybrid : online and in person at the École normale supérieure in Paris

Panel co-organize by the Azat Miftakhov committee and [Memorial Human Rights Center](.) to *assess the human rights situation in Russia through the cases of persecuted academics*

Registration is mandatory by filling out the form [here](.).

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