22 ноября (понедельник), 17:15, Zoom 675-315-555, семинар "Алгебраические группы", Meirav Topol (Shamoon College of Engineering), "Algebra and geometry meet on the way - fundamental groups".

Анонс

I consider an algebraic surface X embedded in some projective space and project it onto the projective plane CP^2, using a generic projection, and get the branch curve S. The curve S is cuspidal with nodes and branch points, and it can tell a lot about X. I calculate the fundamental group G of the complement of S in CP^2. Group G does not change when the complex structure of X changes continuously, and this is the motivation for me to try and classify algebraic surfaces in the moduli space. Because it is not easy to determine G, I can calculate the fundamental group of the Galois cover of X, it is a quotient of G and is considered also as an invariant of classification. The curve S is usually hard to describe so I use the algorithm of degeneration of X to ease calculations for G. At the end of the talk I will present an output of a new computer algorithm, developed
jointly with Uriel Sinichkin (TAU, Israel), which gives a presentation of G.