

Семинар «Геометрические структуры на многообразиях»

Семинар состоится **04 апреля 2019 года**

Семинар пройдет в аудитории **306, Усачева б. Начало в 18:30.**

Василий Рогов Automorphisms of complex manifolds

It is well-known that the group of automorphisms of a compact complex manifold is a complex Lie group and its Lie algebra is the algebra of holomorphic vector fields. Without the assumption of compactness this is not true anymore: for example the group of holomorphic automorphisms of \mathbb{C}^2 has infinite dimension. However, in 1930s Henri Cartan proved that the group of biholomorphisms of a bounded domain is a Lie group. He also showed that this group has no natural complex structure: the operator of complex structure doesn't preserve completeness of vector fields (a vector field is called complete if it generates a global 1-parameter subgroup of biholomorphisms). Later Kobayashi extended both of Cartan's results to a much wider class of non-compact complex manifolds. After explaining all the necessary prerequisites I will formulate and prove the theorems of Kobayashi.