

# Семинар Лаборатории Алгебраической геометрии

## и ее приложений

Семинар состоится в пятницу 12 апреля 2019 года

Начало в 17:00.

Семинар будет проходить по адресу: ул. Усачева, д.6,  
аудитория 306

На семинаре выступит

# Charles Fougeron

(MPI, Bonn) с докладом:

## *Lyapunov exponents and surface groups representations*

**Abstract:** On a hyperbolic surface, we consider a representation of its fundamental group in a matrix group; in other words, a flat bundle above the surface. Under some integrability hypothesis we can associate to these objects a set of Lyapunov exponents and a flag decomposition of the bundle that will characterize the dynamics of the vectors in the bundle transported along hyperbolic geodesics on the surface. This decomposition is sometimes called dynamical variation of Hodge structure. In fact, some recent results relate this dynamical decomposition with the holomorphic subbundles of the flat bundle.

During the seminar, I will explain this link, and will consider a specific case induced by hypergeometric differential equations. Finally, I will present some advances in a work in progress with S. Filip on a family of examples that was remarked to be special through the computation of their Lyapunov exponents, and whose monodromy groups give new conjectural examples of discrete or thin subgroups of matrix groups.

***Приглашаются все желающие!***