

# Семинар Лаборатории Алгебраической геометрии и ее приложений

Семинар состоится в пятницу 20 апреля 2018 года.

Начало в 17:00.

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

На семинаре выступит

## Alice Garbagnati

(Universita Statale di Milano)

с докладом:

### *(Double) Covers of K3 surfaces*

**Abstract:** In the past, the problem to determine finite automorphisms on a K3 surface and their quotients was intensively studied.

If one considers symplectic automorphisms, the quotient admits a desingularization which is still a K3 surface. The main results in this context relate the presence of an automorphism group to certain properties of the Neron-Severi group of the surface, so that one describes the family of K3 surfaces with certain automorphisms as L-polarized families, for certain lattice L.

The converse problem was, quite surprising, less studied: is it possible to describe K3 surfaces which admit certain covers by means of properties of their Neron-Severi groups? In the talk I will report some positive answers to this question, both in the cases where the covering surface is another K3 surface, and in some cases where the cover has order 2 and the covering surface is of general type. In the last part of the talk I restrict attention to double covers which are certain smooth surfaces of general type. The Hodge structure on the second cohomology group of these surfaces naturally contains two different sub-Hodge structures of K3 type. We discuss both of them proving that in certain cases each of them is related to a K3 surface by a geometric construction.

**Приглашаются все желающие!**