Семинар Лаборатории Алгебраической геометрии

и ее приложений

Семинар состоится в пятницу 15 ноября 2019 года**.**

Начало в 17:00.

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

аудитория 306

На семинаре выступит

Pedro Tamaroff

(Trinity College Dublin) с

докладом:

The Tamarkin--Tsygan calculus of an algebra à la Stasheff

Abstract: From the work of Daletskii--Gel'fand--Tsygan it is known that for any associative algebra A the pair $(HH^*(A), HH_*(A))$ of its Hochschild cohomology and homology groups form a Tamarkin--Tsygan calculus, the non-commutative equivalent of the Cartan calculus on a smooth manifold. The canonical pair of chain complexes $(C^*(A), C_*(A))$ computing these groups can be endowed with chain operations inducing this calculus on homology.

A natural question arises: can one extend the assignment $F(A) = (C^*(A), C_*(A))$ to the homotopy category of dg algebras? We answer this in the positive, giving explicit formulas on the cochain level in terms of any quasi-free model B of A and proving homotopy invariance of the calculus by producing for each such B a pair of «small» complexes of nc-fields and nc-forms $(X(B), T(B))$ that is in fact an infinity-calculus, infinity-quasi-isomorphic to the infinity-calculus structure on $(C^*(A), C_*(A))$ of Tamarkin--Tsygan.