Topology Seminar

Gonçalo Tabuada

of Universidade Nova de Lisboa will be speaking on

Non-commutative motives

on March 29 at 4:30 in
MIT Room 2-131

In this talk I will describe the construction of the category of non-commutative motives [1, 2, 3] in Drinfeld-Kontsevich's non-commutative algebraic geometry program. In the process, I will present the first conceptual characterization of Quillen's higher K-theory since Quillen's foundational work in the 70's. As an application, I will show how these results allow us to obtain for free the higher Chern character from K-theory to cyclic homology.

References:

[1] D.-C. Cisinski and G. Tabuada, Symmetric monoidal structure on Non-commutative motives. Available at arXiv:1001.0228.

[2] D.-C. Cisinski and G. Tabuada, Non-connective K-theory via universal invariants. Available at arXiv:0903.3717.

[3] G. Tabuada, Higher K-theory via universal invariants. Duke Math. Journal, 145 (2008), no.1, 121-206. 2010/03/30,,,„Matthew Gelvin"