

On the motivic fundamental group

Emil Jacobsen (Stockholm)

I will introduce the motivic fundamental group of a smooth variety, and explain its relation to the usual fundamental group. The main result can also be phrased as follows: local systems of geometric origin are stable under extension in the category of local systems. I will also present a motivic version of a classical theorem of Hain, on Malcev completions of monodromy representations. At the end, I'll explain some of the group/representation theoretic tools that go into these result.