

Séminaire d'algèbre, topologie et géométrie
Jeudi 16 juin à 14h
Salle de conférences

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*Motivic zeta function and the Hrushovski-Kazhdan style
integration in valued fields*

I will describe, after the seminal work of Hrushovski and Loeser, how to formulate the motivic zeta function attached to a complex regular function in terms of Hrushovski-Kazhdan integration in algebraically closed valued fields. In particular, I will explain the role played by an object called 'the nonarchimedean Milnor fiber', which may be considered, by way of model theory, as an infinitesimal limit of the usual topological Milnor fiber. This yields a more direct computation of the motivic Milnor fiber using the Hrushovski-Kazhdan integral. In the first half of the talk I will describe the general theory of Hrushovski-Kazhdan integration, aiming at a general audience. Since it is imbued with the model theoretic point of view and techniques, this will include a quick introduction to the basics of model theory (some prefer to call it "definability theory" instead of "model theory").