

Séminaire d'algèbre, topologie et géométrie  
Jeudi 31 mars à 14h  
Salle I

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*Buildings and spectral networks*

Spectral networks are certain decorated graphs embedded in a Riemann surface. They arise naturally in the study of stability structures on Fukaya categories with coefficients, as well as in the WKB analysis of the asymptotic behavior of differential equations depending on a small parameter. I will describe a geometric framework, based on the theory of harmonic maps to buildings, for studying spectral networks and the asymptotic behavior of the Riemann-Hilbert correspondence. The notion of a versal pre-building associated with a point in the base of the Hitchin integrable system will play a central role in our discussion. This is a generalization of the leaf space of the foliation defined by a quadratic differential. Based on joint work with L. Katzarkov, A. Noll and C. Simpson.