

Spectral networks and Betti Lagrangians (Online)

mercredi 9 juillet 2025 10:00 (1 heure)

In this talk I will discuss the interface of spectral network theory and real contact symplectic topology. I begin with an introduction to weave theory, which allows one to construct exact Lagrangians from totally degenerate spectral networks (otherwise known as N-graphs). I then broaden the classical notion of a meromorphic spectral curve to the wider setting of Betti Lagrangians and formulate a corresponding concept of generic spectral networks.

We give lots of explicit examples—BNR spectral curves, ADE singularities, and N-triangle configurations. Finally, I outline how spectral networks admit both pseudoholomorphic and categorical characterisations: the former through Floer theory, the latter through the partially wrapped Fukaya category theory, leading to a concrete understanding of the Gaiotto–Moore–Neitzke non-abelianisation functor. I will close by sketching potential applications.

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