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## **ICTS Seminar**

Title : Spectral networks, symplectic geometry, and WKB analysis

Speaker : Pranav Pandit, University of Vienna, Austria

Date : Monday, January 29, 2018

Time : 11:30 AM

Venue : Madhava Lecture Hall, ICTS Campus, Bangalore

Abstract : Spectral networks are certain decorated graphs embedded in a Riemann surface. They were introduced by Gaiotto, Moore, and Neitzke in the context of certain 4d physical theories. In this talk, I will introduce a generalization of spectral networks, and explain how they arise naturally in the theory of stability structures on Fukaya categories with coefficients. This theory is an approach to the study of the stability of A-branes. I will also indicate how spectral networks are related to (i) the Hitchin system, (ii) the theory of harmonic maps to buildings, and (iii) the behavior at infinity of the Riemann-Hilbert correspondence. This talk is based on various collaborations with Fabian Haiden, Ludmil Katzarkov, Maxim Kontsevich, Alexander Noll, and Carlos Simpson.