



The Math/Stats Colloquium  
Department of Mathematics and Statistics  
San José State University



**Melissa Tacy**

Univ. Otago (vis. MSRI)

*Quantum chaos and random waves*

OCTOBER 23, 2019, MH320

**Abstract:** The quantum-classical correspondence principle suggests that, as the energy of a quantum system increases, we can expect to see echoes of the behaviour of the analogous classical system. Of particular interest are those systems whose classical analogue is chaotic. It is conjectured that such systems cannot display any phase space concentration. In the 70s Berry introduced the random wave model for quantum chaotic billiard systems. In this talk I will discuss conjectures for general quantum systems and some of the recent results on random waves.

*Background:* Multivariable calculus and linear algebra.

**About the speaker:** Melissa Tacy is a lecturer at the University of Otago, in Dunedin New Zealand. She completed her PhD at the Australian National University and held postdoctoral positions at the IAS, Northwestern University and University of Adelaide. She is currently a Research Member in the Fall 2019 program on Microlocal Analysis at MSRI.

SNACKS IN MH331B AT 2:30 PM

TALK STARTS AT 3:00 PM

For more information, see our full schedule at:

<http://www.timhsu.net/colloq/>