Why should we care about Steklov eigenproblems? Dr. Nilima Nigam¹

Steklov eigenproblems and their variants (where the spectral parameter appears in the boundary condition) arise in a range of useful applications. For instance, understanding some properties of the mixed Steklov-Neumann eigenfunctions tells us why our coffee may spill when we walk. In this talk, I'll present a high-accuracy discretization strategy for computing Steklov eigenpairs, and then show some applications.

¹Department of Mathematics and Statistics, Simon Fraser University, 8888 University Dr, Burnaby, BC V5A1S6. (nigam@math.sfu.ca).