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Title: Local Hölder Stability in the inverse Steklov and Calderón problems for radial Schrödinger operators and quantified resonances

Abstract: We obtain Hölder stability estimates for the inverse Steklov and Calder\'on problems for Schrödinger operators corresponding to a special class of $L^2$ radial potentials on the unit ball. These results provide an improvement on earlier logarithmic stability estimates obtained in the case of the Schrödinger operators related to deformations of the closed Euclidean unit ball. The main tools involve: i) A formula relating the difference of the Steklov spectra of the Schrödinger operators associated to the original and perturbed potential to the Laplace transform of the difference of the corresponding amplitude functions introduced by Simon in his representation formula for the Weyl-Titchmarsh function, and ii) A key moment stability estimate due to Still. It is noteworthy that with respect to the original Schrödinger operator, the type of perturbation being considered for the amplitude function amounts to the introduction of a finite number of negative eigenvalues and of a countable set of negative resonances which are quantified explicitly in terms of the eigenvalues of the Laplace-Beltrami operator on the boundary sphere. This is joint work with Thierry Daudé (Besançon) and François Nicoleau (Nantes).