## **Analysis and Applied Mathematics Seminar**

Perturbation theory for discrete eigenvalues: Kato-Rellich theory and asymptotic expansions

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**Abstract:** Basic facts of Kato-Rellich regular perturbation for discrete eigenvalues are briefly reviewed. For singular perturbations (e.g. anharmonic oscillator, Stark effect) asymptotic expansions for the perturbed projections leading to (almost) invariant subspaces are provided.

This is a two hour introductory talk intended mainly for graduate students.

Monday, September 21 at 4:00 PM in SEO 636