## **Analysis and Applied Mathematics Seminar**

## Hybrid Inverse Problems and Imaging: Challenges and Opportunities

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**Abstract:** Hybrid imaging (also called multiwave imaging) refers to imaging techniques where we combine a high-resolution imaging method (such as ultrasound imaging) with a high-contrast imaging method (such as diffuse optical tomography) to take the advantages of both imaging modalities. Imaging reconstructions in hybrid imaging usually involve solving inverse problems for PDEs of different types. In this talk, I will provide a quick overview of the field of hybrid imaging and demonstrate, by looking into the details of two hybrid modalities, many challenges and opportunities in this fascinating field for applied mathematicians.

Monday, November 7 at 4:00 PM in SEO 636