

Marshall Math Colloquium

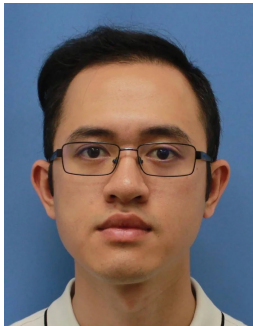


**MATHEMATICS
& PHYSICS**

Speaker: Dr. Trung Truong
Location: SH 518
Date: 20 November 2024 1:00PM–2:00PM
Online link: <https://bit.ly/3zufSWc>

Title: Advances in Numerical Methods for Inverse Scattering

Abstract:



Inverse scattering problems arise from various applications in real life: radar technology, geophysical exploration, medical imaging, and non-destructive testing, to name a few. These problems aim to detect, locate, image, or even determine physical parameters of an unknown object by analyzing how the object scatters waves. Over the past few decades, there have been a great number of numerical methods studied by not only mathematicians, but also physicists and engineers to solve inverse scattering problems. In this talk, we will have a glance at some of the most well-known methods in this field. Their theoretical foundation, numerical implementation, and some related open questions will be presented.

