

Electromagnetic Inverse Scattering

Tuesday, March 21, 2023

2:00 pm – 3:00 pm

Olin 202

Open to the Public

Reception in Olin 204

3:00 pm – 3:30 pm

Dr. James E. Richie

Associate Professor and Associate Chair of the
Electrical and Computer Engineering Department

ABSTRACT:

Electromagnetic scattering is a topic with a long history. In this presentation, the theory for the forward and inverse scattering problem in the near-resonance region is reviewed, culminating in the two integral equations: the Data equation and the Object equation. A survey of qualitative and quantitative methods to solve the inverse problem will be presented, including some results.

BIO:

Dr. James Richie received the Ph.D. degree from the University of Pennsylvania in 1988. He has been on the faculty of the EECE department at Marquette University since Fall of 1988, currently an Associate Professor and the Associate Chair of the Department.

Dr. Richie's specialization is in electromagnetics, including numerical methods and more specifically scattering and inverse scattering near the resonance region. He is a member of IEEE, Eta Kappa Nu, Tau Beta Pi, and Sigma Xi.