Ground-based Radar Remote Sensing in the Marine Environment

A colloquium sponsored by the Society of Physics Students







Radar is a commonly used technology in a wide range of civilian and military applications from weather forecasting to surveillance of the land and sea. Radar performance is greatly impacted by the environment in which the transmitted electromagnetic waves propagate. Thus, prediction of the environment is critically important to properly assessing the efficacy and overall performance of radar systems; however, the environment is difficult to predict and measure.

In this talk, we present a method that utilizes the radar signal itself to back-out or reverse-engineer the environment, specifically the atmospheric refractivity, which is the main air property that drives changes in electromagnetic wave propagation. Data collected from a large field campaign will be presented to demonstrate the method

> Please contact SPS president Carly Healy at <u>chealy2@mail.umw.edu</u> with any questions! Hosted by the Department of Chemistry and Physics

Open to all who wish to attend