

Introduction to Synthetic-Aperture Radar Imaging

Margaret Cheney
Rensselaer Polytechnic Institute

Radar imaging is a technology that has been developed, very successfully, within the engineering community during the last 50 years. Radar systems on satellites now make beautiful images of regions of our earth and of other planets such as Venus. One of the key components of this impressive technology is mathematics, and many of the open problems are mathematical ones.

This lecture will explain, from first principles, some of the basics of radar and the mathematics involved in producing high-resolution radar images.

