



Software Enabled Radio Astronomy (SERA) Workshop on Phased Array Antenna Modeling and Signal Processing

Brigham Young University, Provo, Utah, USA
October 24, 2016

Phased array feeds and aperture arrays are transitioning from research to development, for synthesis imaging instruments, Square Kilometre Array (SKA) Pathfinders, and large single-reflector telescopes. To enable students, astronomers, and researchers to access the latest developments in this field, Brigham Young University announces a one-day, hands-on workshop on array antenna modelling and signal processing for astronomical instruments. To enable convenient travel to both events, the workshop will follow the RFI2016 meeting and will be held on October 24, 2016 in Provo, Utah, USA.

Organizing Committee

Karl F. Warnick and Brian D. Jeffs, Brigham Young University, Provo, Utah, USA

Richard Prestage, National Radio Astronomy Observatory, Green Bank, West Virginia, USA

Topics

Modeling phased array receivers
Microwave network theory
Signal correlation matrices
Statistically optimal and constrained beamforming
Array calibration techniques
Hands-on MATLAB code development

Important Dates

September 30, 2016	Registration deadline
October 24, 2016	Workshop (8:00am to 4:30pm)

Format

The workshop will consist of a single track of lecture and classroom style presentations by the organizers on the listed topics. Attendees may optionally bring a laptop with MATLAB installed, in order to develop and execute example codes throughout the day. Basic array modeling and signal processing codes will be provided to attendees to allow for hands-on learning and discussion.

Registration

The workshop is free to attend, but registration is required. Register for the workshop at <http://sera2016.eventbrite.com>

