

IQSE AMO QO Seminar Series

**Tuesday, October 18th, 11:30 am ZOOM & IQSE
seminar room (MPHY 578)**

Pizza will be served for IQSE members at 11:00 am. The talk will start around 11:30 am

Dr. Brian Cairns

NASA Goddard Institute for Space Studies

Developments in polarimetric remote sensing of the Earth over the last two decades

It is roughly a hundred years ago that the first extremely accurate polarimetric observations of Venus were made by astronomers and another fifty years before the particle scattering and radiative transfer modeling tools were developed that allowed for the interpretation of those observations as being caused by sulfuric acid clouds. Building on the measurement techniques and modeling tools developed for Venus and other planets, over the last twenty years significant progress has been made in making and interpreting polarimetric observations of the Earth. These observations can provide detailed aerosol and cloud properties with unprecedented accuracy. Future satellite missions are expected to use these techniques to facilitate a reliable quantification of the aerosol direct and indirect effects on climate, the most uncertain forcings of climate change. In this talk I will present the developments in polarimetric remote sensing that have led to the creation of these capabilities.

ZOOM information:

<https://tamu.zoom.us/j/98156251523?pwd=QVdSdGxtL1UyY0g1L083SU5QR0QrUT09>

Meeting ID: 981 5625 1523

Passcode: 297578

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