Apr 25th, 2:00 PM - 5:00 PM

**Paper Session I-C - The Spaceborne Imaging Radar and X-Band Synthetic Aperture Radar (SIR-C/ X-SAR) Mission: Toward an Understanding of our Changing Planet**

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Data from the Spaceborne Imaging Radar and X-Band Synthetic Aperture Radar (SIR-C/X-SAR) are being used by the international science community to understand the global environment and how it is changing. Fifty-two teams of scientists from 13 countries were originally selected to analyze SIR-C/X-SAR for studies of Ecology, Hydrology, Geology and Oceanography. Access to the data through a public archive, has also made it possible for many additional scientists to use the unique perspective of space and this sophisticated sensor to explore our planet in more detail than has ever before been possible. Data have already been used to validate models for mapping vegetation type and amount, measuring snow and soil moisture, and mapping flooding extent. Data acquired in the radar interferometry mode have been used to generate topographic maps and measure topographic changes in the six months between the two flights of SIR-C/X-SAR in April and October, 1994. SIR-C/X-SAR not only represents a highly successful international collaboration for science, but also for the advancement of space technology. SIR-C/X-SAR uses three microwave wavelengths L-band (24 cm), C-band (6 cm) and S-band (3 cm). SIR-C was developed by NASA's Jet Propulsion Laboratory, X-SAR was developed by the Dornier and Alenia Spazio companies for the German Space Agency, Deutsche Agentur fuer Raumfahrtangelegenheiten (DARA), and the Italian Space Agency, Agenzia Spaziale Italiana (ASI), with the Deutsche Forschungszentrum fuer Luft und Raumfahrt e.v. (DLR), the major partner in science, operations and data processing of X-SAR.