Satellite Infrared Radiance Validation Using the NAST-Interferometer

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Advanced satellite sensors are tasked with improving measurements of the Earth's atmosphere, clouds, and surface to enable enhancements in weather prediction, climate monitoring capability, and environmental change detection. Measurement system validation is critical to achieving this goal and maximizing research and operational utility of resultant data. This study will address some of the challenges associated with validating infrared radiances, while exploiting the benefits obtained from coincident high spectral/spatial resolution observations from the National Polar-orbiting Operational Environmental Satellite System (NPOESS) Airborne Sounder Testbed-Interferometer (NAST-I) during recent field campaigns. Methodology employed herein for Aqua AIRS radiance validation will be applied to corresponding Metop IASI data when available.

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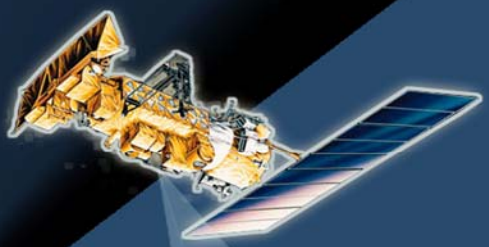

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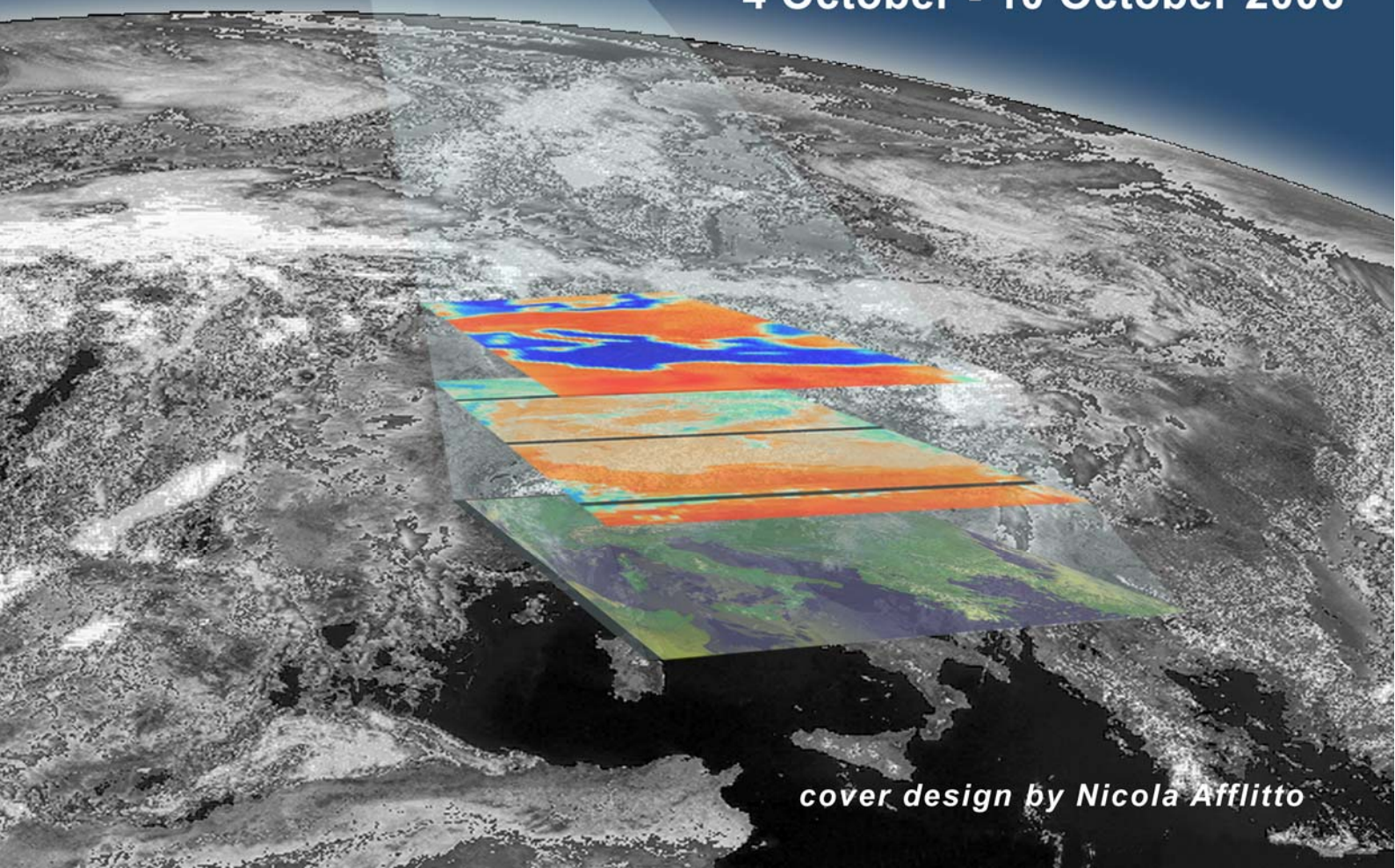

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