Contribution ID: **452** Type: **Invited Speaker / Conférencier invité**

Exoplanet Atmospheres: Triumphs and Tribulations

Tuesday, 16 June 2015 08:45 (30 minutes)

From the first tentative discoveries to veritable spectra, the last 15 years has seen a triumphant success in observation and theory of exoplanet atmospheres. Yet the excitement of discovery has been mitigated by lessons learned from the dozens of exoplanet atmospheres studied, namely the difficulty in robustly identifying molecules, the possible interference of clouds, and the permanent limitations from a spectrum of spatially unresolved and globally mixed gases without direct surface observations. Nonetheless the promise and expectation is that the next generation of space telescopes will have the capability of detecting atmospheric biosignature gases if they exist on planets orbiting nearby stars, and the vision for the path to assess the presence of life beyond Earth is being established.

Primary author: Prof. SEAGER, Sara (Massachusett institute of technology)

Presenter: Prof. SEAGER, Sara (Massachusett institute of technology)

Session Classification: T1-3 Ground-based / in situ observations and studies of space environment I (DASP) / Observations et études de l'environnement spatial, sur terre et in situ I (DPAE)

Track Classification: Atmospheric and Space Physics / Physique atmosphérique et de l'espace (DASP-DPAE)