

From planets to exoplanets: the case for spectroscopy with EChO

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The characterization of exoplanetary atmospheres from EChO with spectroscopy in primary and secondary transit will extend our set of planetary atmosphere in the parameter space of temperature, composition, structure and variability. From the knowledge of the present Solar System planetary atmospheres, and also of the retrieved historical evolution of these atmospheres, some lessons can be learned for exoplanets. This is true both in modeling procedures and parameter retrieval in complex spectroscopic environment of planets, as well as on the adaptation of inversion methods. Some examples will be given to address different approaches in spectral simulation, spectroscopic needs, and interpretation of spectra.