

EChO Open Science Workshop

Monday, 01 July 2013, 14:00 – 19:30

14:00 - 14:10 K. Isaak: Introduction and welcome

Session chair: Kate Isaak

14:10 - 14:40 G. Tinetti: The science of EChO

14:40 - 15:00 L. Colangeli: The Context of EChO – The Cosmic Vision programme

15:00 - 15:25 P. Drossart: From planets to exoplanets: the case for spectroscopy with EChO

15:25 - 15:55 I. Ribas: The targets of EChO: availability and characterization of the host stars

15:55 - 16:20 G. Micela: Stellar activity effects on EChO observations

16:20 - 16:45 *Coffee break*

Session chair: Ignas Snellen

16:45 - 17:10 C. Lovis: Finding the EChO targets: overview of present and future missions and surveys

17:10 - 17:30 M. Ollivier: High accuracy spectro-photometry in the (real) astrophysical environment

17:30 - 18:00 1 minute introductory slides to posters

18:00 - 19:30 Welcome drinks and posters

19:30 Buses to Noordwijk hotels

Tuesday, 02 July 2013, 09:00 - 18:10

Session chair: Christophe Lovis

09:00 - 09:25 I. Snellen: Echo and ground-based characterization of exoplanet atmospheres

09:25 - 09:50 B. Swinyard: EChO in the context of the JWST

09:50 - 10:20 K. Isaak: EChO: Science requirements and community access

10:20 - 10:40 *Coffee break*

Mission Design and the EChO Spectrometer

Session chair: Pierre Drossart

- 10:40 - 11:10 L. Puig: The EChO assessment study and mission design
- 11:10 - 11:30 P. Crescence: Results of the Astrium industrial assessment study
- 11:30 - 12:10 J-P. Prost: Results of the TAS industrial assessment study
- 12:10 - 12:40 P. Eccleston: The EChO Instrument
- 12:40 - 13:40 Lunch break*
- 13:40 - 14:10 Discussion

Contributed Science

Session chair: Giusi Micela

- 14:10 - 14:25 A. Sozzetti: Gaia as a tool for EChO target selection and characterization.
- 14:25 - 14:40 D. Queloz: The CHEOPS mission
- 14:40 - 14:55 D. Latham: TESS - the Transiting Exoplanet Survey Satellite
- 14:55 - 15:10 P. Wheatley: EChO targets from the Next Generation Transit Survey (NGTS)
- 15:10 - 15:25 C.A. Griffith: Interpretation of low resolution optical and IR exoplanetary measurements
- 15:25 - 15:40 J. Harrington: A Spitzer survey of exoplanet secondary eclipses
- 15:40 - 16:10 Coffee break*

Spectroscopy and Radiative Transfer

Session chair: Giovanna Tinetti

- 16:10 - 16:25 J. Tennyson and S. Yurchenko: The status of spectroscopic data for the EChO mission
- 16:25 - 16:40 J. Barstow: GJ 1214b - a mystery for EChO to solve
- 16:40 - 16:55 R.J. de Kok: Forward-scattered light in transmission measurements of (exo)planetary atmospheres
- 16:55 - 17:10 M. Tessenyi: Molecular detectability in exoplanetary emission spectra

- 17:10 - 17:25 P. Cubillos: Extracting the lowest eclipse signals - multiband Spitzer observations of TrES-1
- 17:25 - 17:40 V. Nascimbeni: Unveiling an exoplanetary Neptunian atmosphere through multiband transit photometry
- 17:40 - 18:10 Posters
- 18:20 Buses to Noordwijk hotels

Wednesday 03 July 2013, 09:00 - 16:15

Meteorology, Structure and Dynamics

Session chair: Ignasi Ribas

- 09:00 - 09:15 F. Forget: On the diversity of terrestrial planets - possible atmospheres, climate modeling and climate instabilities.
- 09:15 - 09:30 J. Leconte: Towards the hottest terrestrial planet atmospheres - 3D climate modeling and perspectives for observations
- 09:30 - 09:45 A.S. Medvedev: From cold to warm gas giants - a three-dimensional atmospheric general circulation modeling
- 09:45 - 10:00 V. Parmentier: The study of exo-climates with EChO
- 10:00 - 10:15 N. Iro: Toward a universal model for planetary climate
- 10:15 - 10:30 T. Guillot: Structure and evolution of planets with EChO
- 10:30 - 10:45 D. Turrini: Atmospheric composition of hot Jupiters - insights from the history of the Solar System
- 10:45 - 11:15 *Coffee break*

Detailed aspects of the EChO Instrument

Session chair: Martin Linder

Alberto Adriani: The VNIR module

Gonzalo Ramos Zapata and Miroslaw Rataj: The SWIR module

Jean-Michel Rees: The MWIR module

Neil Bowles: The LWIR module

Gianluca Morgante: Thermal aspects and the EChO cryo-chain

Ian Bryson and Pierre-Olivier Lagage: Detectors for EChO

12:45 - 13:45 *Lunch break*

Data handling, ground segment

Session chair: Marc Ollivier

13:45 - 14:00 M. Ehle: EChO ground segment - overview and science operation assumptions

14:00 - 14:25 T. Lim: EChO ground segment - The Instrument Operations and Science Data Centre

14:25 - 14:40 I. Waldmann: Investigating the photometric stability of EChO

14:40 - 14:55 I. Ribas: The EChO long term planning tool

14:55 - 15:10 V. Coudé du Foresto: EChO mission scenarii

15:10 - 15:25 J.P. Beaulieu: EChO calibration using stable or well known variable stars

15:25 - 15:40 C. Danielski: Stellar activity detrending

Discussion

15:40 - 16:15 Round-table discussion on EChO (Chair: Kate Isaak)

16:15 End of Meeting