

Program SF2A workshop - s12

"Origin of water and life: What astrophysical and instrumental challenges for tomorrow?"

When:

- Tuesday June 20. S12a from 14:00 to 18:25 (with 15 min coffee break)
- Wednesday June 21. S12b from 14:00 to 18:25 (with 20 min coffee break)
- **Web:** <https://journes.sf2a.eu/en/program/>

Where:

- **Amphitheatre 4** in building 3, in front of amphitheatre Cavailles,
- Building Le Patio on the **campus Esplanade of the University of Strasbourg**. The main entrance is located at **rue René Descartes, number 22, Strasbourg**.

Information for speakers:

- Invited talk (first afternoon): 20min + 5min questions
- Invited talk (second afternoon): 15min + 5min questions
- contributed talk (first afternoon): 13min + 2min questions

Tuesday, June 20th. S12a

- 14:00: intro
- 14:10: Water-dominated atmospheres: structure, signatures & implication for habitability:
F. Selsis
- 14:35: Prebiotic chemistry, comparison with young Earth: **J. Moran**
- 15:00: Sources of terrestrial water : **L. Piani (remote)**
- 15:25: 2 Contributed Talks
 - How the origin of stars in the Galaxy impacts the composition of planets? **N. Cabral**
 - Water in solar-type protostars: **A. Andreu**
- 15:55: COFFEE
- 16:10: Loss of volatiles by geological and astrophysical effects: **N. Cowan**
- 16:35: Surface water, planetary habitability: **M. Turbet**
- 17:00: Water content of detected exoplanets : **L. Acuña**
- 17:25: 3 Contributed Talks
 - Primitive Earth: **B. Charnay**
 - The SOPHIE search for northern extrasolar planets-XIX. HD88986: a multi-planet system with a temperate transiting sub-Neptune and a wide-orbit Jupiter mass planet: **N. Heidari**
 - Thermal Emission from the Earth-sized Exoplanet TRAPPIST-1 b using the JWST: **E. Ducrot**
- 18:10: Conclusions
- Eod: 18:25h

Wednesday, June 21st. S12b

- 14:00: Intro
- 14:10: Atmospheric retrievals of terrestrial planets: **E. Alei**
- 14:30: ELT - ANDES & RISTRETTO: **C. Lovis (remote)**
- 14:50: ELT - PCS & SPHERE+: **M. Kasper**
- 15:10: 3 Contributed Talks
 - Direct imaging below the diffraction limit with JWST via phase kernel interferometry: **T. Vandal**
 - RST/CGI: **J. Mazoyer**
 - LUVUIR-POLLUX/Exoplanets: **A. Ines Gomez**
- 15:55: COFFEE
- 16:15: 1 Contributed talk:
 - EPRV initiative to identify the best target for HWO & LIFE: **N. Hara**
- 16:30: Hab Worlds: **L. Pueyo (remote)**
- 16:50: LIFE: **S. Quanz**
- 17:10: Preparation & contribution of the French community to future long-term instruments/missions for exoplanet/exobiology: **D. Mouillet (remote)**
- 17:30: Followed by a general discussion
- 18:15: Conclusions
- Eod: 18:25h

Discussion - Questions:

- Which scientific community(ies) (astronomy, geoscience, climate, biology...) are interested in working on this topic in France?
- Who is currently working on the subject (astrophysics, techno) in France?
- Framework to understand how to organize the community (if needed)?
 - to participate in the National CNES/INSU “prospective” about HWO/LIFE projects & related R&D?
 - to not miss important NASA/ESA/CNES/French/European milestones/calls?
 - PEPR-Origins, InfraTech2024, ...
 - to answer current requests in a coordinated manner (Roman, NASA's GOMAP Program and HWO, LIFE...)?