

# 2nd NenuFAR Cosmic Dawn workshop

## November 15-16 2021

Program (All times CET)

All slots are 15 min long followed by 10 min for questions



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### Zoom link:

<https://us02web.zoom.us/j/89372224627?pwd=bzRIWIZpUG5taDdiVVRFMUdWSnoxZz09>

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**Venue - Attendees:** 2nd NenuFAR Cosmic Dawn workshop - Venue - Attendees

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Monday 15 November 2021

**13.00 - 13.30** Joint coffee/tea and informal chat

**13.30 - 13.40 Welcome / status of the project / round table (*Benoit / Léon*)**

**13.40 - 15.40 Observation and data processing session - chair: Leon**

- 13.40 - Philippe Zarka** Updates on the NenuFAR telescope
- 14.05 - Florent Mertens** NenuFAR Cosmic Dawn observations: status and progress
- 14.35 - Bharat Gehlot** Latest news from the ACE project
- 15.00 - Hyoyin Gan** LOFAR-EoR excess analysis
- 15.25 - Vibor Jelic** Polarized diffuse emission at low radio frequencies

**15.50 - 16.20 Coffee/tea break**

**16.20 - 17.30 Observations / data analysis discussion session**

- Lessons and inputs from other experiments.
- Current major challenges.
- Plan and actions for the observation/processing team.
- Other auxiliary science: transients, extragalactic sources, others ?
- Computer resources.

**Tuesday 16 November 2021**

**09.30 - 10.00 Welcome coffee/tee**

**10.00 - 10.50 Theory session #1 - chair: Benoit**

- 10:00 - Pierre Ocvirk** Cosmic Dawn III: the latest and largest radiation-hydrodynamical simulation of the Epoch of Reionization
- 10:25 - Emilie Thelie** The topology of reionization redshifts in models of the Epoch of the Reionization

**10.50 - 11.40 Data analysis methods - chair: Leon**

- 10.50 - Florent Mertens** 21-cm statistical signal separation with ML-GPR
- 11.15 - Erwan Allys** Scattering Transforms: which application to Cosmic Dawn?

**11.40 - 13.00 Lunch break**

**13.00 - 13.30 Coffee/Tea**

**13.30 - 16.25 Theory session #2 - chair: Benoit**

- 13:30 - Romain Meriot** The LICORICE simulations

**13.55 - Anastasia Fialkov** Recent theoretical developments

**14.25 - 15.20 Theory discussion session**

- Implications of the latest global experiment results (SARAS3, EDGES etc...).
- How to assess the robustness of CD modelling ?
- Bayesian inference and machine learning: pros and cons, complementarity

**15.20 - 15.50** Coffee/tea break

**15.50 - 17.00 General discussion, summary, next steps, actions**

- Synergies outside/inside the project.
- Communication, visibility of the project.
- Policy regarding data products.
- Funding.