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## **WP 2 Deliverable No. D2.2**

### **First year meetings and workshops report**

Project acronym:  
**AHEAD2020**

Project Title:  
**Integrated Activities for the High Energy Astrophysics Domain**

Grant Agreement No: **871158**

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**2020-03-02**

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1.0	25-02-2021	J.M. Torrejón	L. Piro

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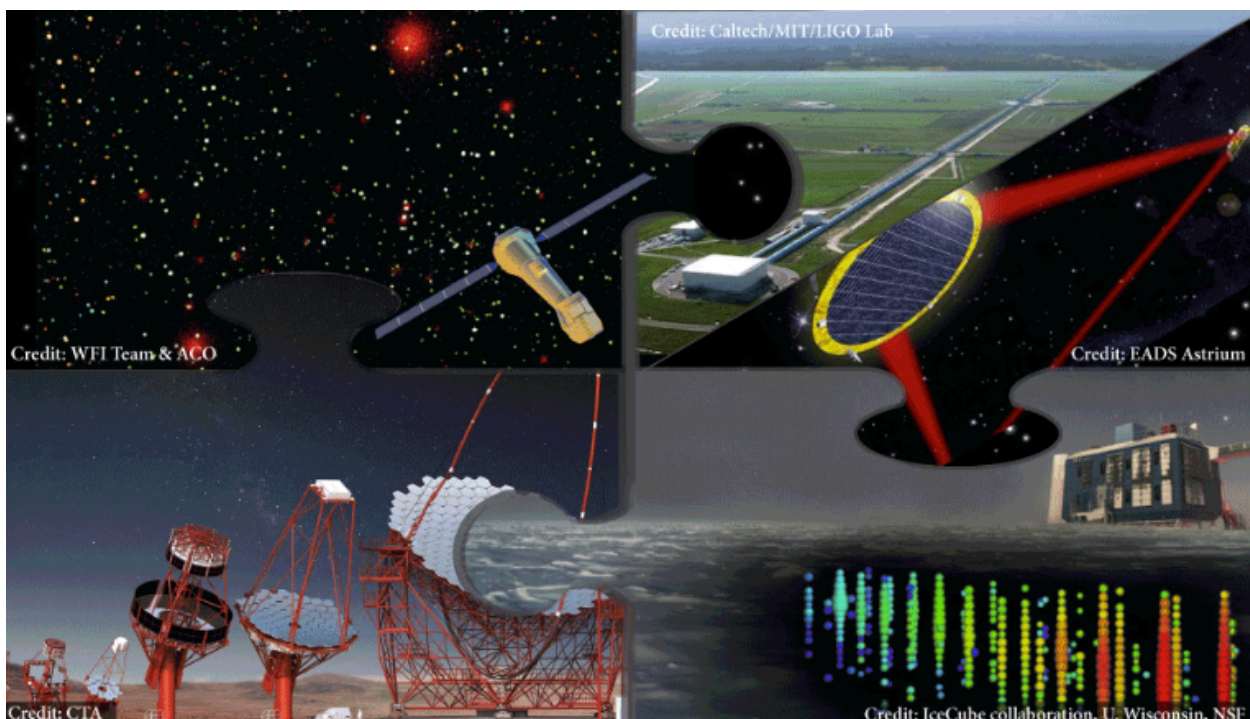
Meetings and Workshops..... 4

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## Meetings a Workshops

This document concerns the delivery of the WP2 (Networking for the High Energy Astrophysics Community) Meetings and Workshops report, applying to the first year (March 2020-February 2021). Due to the Covid-19 outbreak, all face-to-face activities were cancelled, thereby seriously impacting all activities planned for the first year. The vast majority of them were postponed waiting for a more favorable situation. Unfortunately, this has not happened yet so some of the meetings have been moved to virtual. In the period considered for this report, only one conference has been held.

### AMHEAS II: AHEAD Multimessenger and High Energy Astrophysics Synergies II



Within the WP2 Task 2.3 “AHEAD Conferences and Workshops”, the on-line conference (AMHEAS: AHEAD Multimessenger and High Energy Astrophysics Synergies), second in a series after the first one held in Alicante in November, 2019, was co-organized, by CSIC-IFCA and the University of Alicante (UA). The workshop focussed on identifying and developing potential

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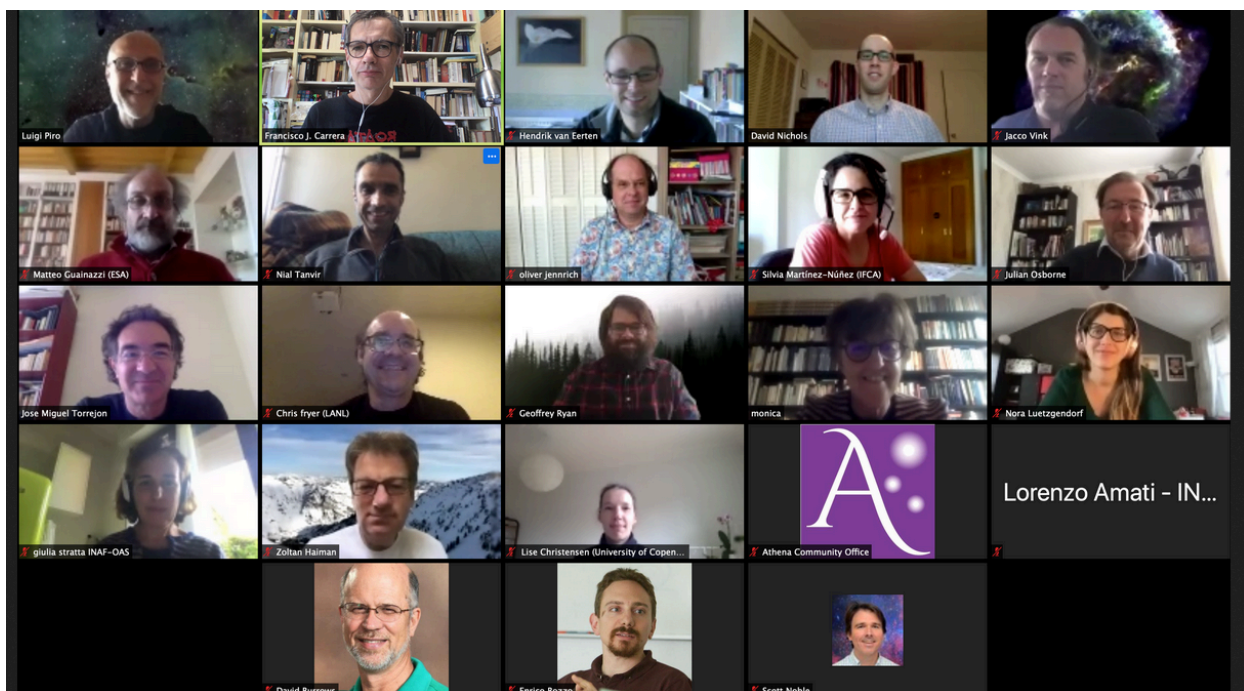
scientific synergies between the *Athena* X-ray observatory mission (ESA) and GW/v's/HE/GRB facilities that will be operational contemporary to *Athena*.

The goal is to produce a white paper that should address the scientific topics where the synergetic use of *Athena* and the key multimessenger facilities operating at the end of this decade will result in a scientific added value.

This conference should have been held face-to-face but was finally turned to virtual due to the Covid-19 situation. Information of the conference can be found at:

<https://indico.ifca.es/event/1420/>

The conference run from 5 to 6 of May 2020 and was attended by 21 researchers from Europe and USA.



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The workshop program was:

### **Athena- Multimessenger Synergy Meeting/Videocon**

May 5 and 6, 2020

#### **Program**

May 5 13.00-18.00 (CEST)

#### Introduction, GWs from ground and space

- Welcome and Logistics: Francisco Carrera/ACO (5 min)
- Introduction and scope of the meeting: Luigi Piro (15 min) Report from Athena and ground-based GW observatories: LIGO & VIRGO:
- Introduction: Science Themes & Landscape: David Nichols (20 min)
- Off-axis afterglow: Hendrik Van Eerten (15 min)
- Late time kilonova: Geoff Ryan (15 min)
- Observational strategy: Luigi Piro (15 min)
- Current status and next steps: key figures, simulations & schedule: David Nichols (20 m)

#### Report from Athena & LISA:

- Introduction: Landscape and Science Themes: Oliver Jennrich (20 min)
- SMBH: Monica Colpi (25 min)
- Other mergers: Alberto Sesana (10 min)
- Athena Observational strategy & Caveats: Matteo Guainazzi (15-30 min)
- White dwarfs: Oliver Jennrich (5 min)
- Current status and next steps: key figures, simulations & schedule: Oliver Jennrich (20 min)

May 6 13.00-18.00 (CEST)

- Athena Community Office: resources for simulations: Francisco Carrera (10 min)
- SIXTE: Joern Wilms (15 min)
- Report from Athena v's and VHE( Icecube, KM3net, CTA):
- Introduction: Landscape and Science Themes: Jacco Vink (20 min)
- Galactic and other sources (clusters): Jacco Vink (20 min)

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- Jets and outflows from AGN: Paolo Padovani (15 min)
  - GRBs, other sources and fundamental physics: Alexis Coleiro (20 min)
  - Observational strategy, status & future steps: Alexis Coleiro (20 min)

Report from Athena and Transient Universe with Theseus, Leads P. O'Brien (max 2 hrs):

- Introduction: Landscape and Science Themes: Lorenzo Amati, Paul O'Brien (20 min)
- Cosmic dawn: Lise Christensen (20 min)
- Transients: Julian Osborne (15 min)
- Multimessenger: Giulia Stratta (15 min)
- Observational strategy: Enrico Bozzo (15 min)
- Current status and next steps: key figures, simulations & schedule: Paul O'Brien (20 min)

Wrapping up: next steps, schedule, actions for final WP: Luigi Piro & all (20 min)