

IUPAP C19 – Astrophysics. Activity report 2019.08 to 2020.03

1. Commission membership 01/2018 - 12/2020 (- 12/2021)

Chair: Gerry Gilmore [*United Kingdom*]
Vice-chair: Andreas Burkert [Germany]
Secretary: Julie McEnergy [USA]

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Susana Lizano (2017)
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2. IUPAP support of international conferences

The main meeting sponsored was the 30th Texas Symposium on Relativistic Astrophysics. By tradition C19 sponsors this premier international meeting in this major subject.

The 30th Texas Symposium on Relativistic Astrophysics took place from Sunday 15 to Friday 20 December 2019 in the historic seaside city of Portsmouth, UK. The Texas meetings have covered topics such as black holes, gravitational waves, neutron stars, cosmic rays, dark matter and the early Universe since the first symposium, held in Dallas in 1963. Following the tradition of previous meetings, the 2019 Symposium will cover a broad range of subjects in relativistic astrophysics.

IUPAP sponsorship is prominently featured on the Symposium website, as are the relevant IUPAP Policies. See <https://texas2019.org>

3. IUPAP Young Scientist Medals in the field of Astrophysics

The 2018 and 2019 Prizes have been very widely advertised, with the notice – see <http://iupap.org/commissions/c19-astrophysics/news/> - and applications circulated through national mailing lists in the countries with C19 representatives, and through various

international astronomy organisations. From a very strong field two outstanding winners were selected, both of whom gave plenary presentations, and were presented with their medals and certificates, at the 30th Texas Symposium, December 2019 (see above). The winners were:

Dr Vincent Bourrier – University of Geneva

“For his outstanding theoretical and observational work on star-planet interaction and atmospheric escape, which has led to the first live insights into the erosion of atmospheres of low-mass exoplanets, the coupling between the atmospheric and orbital evolution, and innovative techniques to exploit exoplanet observations to bring new insights on stellar physics.”

Dr Elisabeth Krause – University of Arizona

“For pioneering contributions to the extraction of cosmological insights from large galaxy surveys, including modeling key observables, covariance matrix estimation, and the development of cosmological analysis tools, which have ushered in a new era of multi-probe cosmology and set a new standard for forthcoming experiments.”

4. Other activity

An application to support the next Texas Symposium, which will be held in Prague, 13-17 December 2021 – see <https://texas2021.org> – has been submitted to IUPAP. The next two young scientist award winners (2020 & 2021) will be selected, and will give presentations at this meeting, following our standard procedure.

A major update to the IUPAP web material on C19 was produced, under the leadership of Pietro Ubertini, and the site updated. A shorter summary of this material was published in the IUPAP Newsletter.

All commission members were able to continue following the exceptional extension to the current membership terms.