COMMISSION H1 THE LOCAL UNIVERSE

(L'UNIVERS LOCAL)

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Panos Patsis, Priya Shah

ANNUAL REPORT 2022-2023

The IAU Commission H1 "The Local Universe" presently unites 349 members, six more than a year ago. Our Commission focuses on studies of the Milky Way and nearby galaxies, where we can resolve galaxies into stars. Extensive observational and theoretical research is going on in order to understand galaxy formation history and evolution.

Commission H1 The Local Universe Seminars

The seminar series that were launched in December, 2021, were held via Zoom approximately once per month and covered both hot topics and long-term work.

Commission H1 The Local Universe

Meetings



This online seminar series is primarily for IAU commission H1 members, but is open to everyone who have interest in the Local Universe.

The Seminar aims to promote exchanging scientific achievements and ideas between scientists with common interests.

Seminars are held via Zoom and YouTube once per month (tentatively) and cover both hot topics and long-term work.

The seminars are recorded and listed on YouTube for asynchronous viewing: IAU commission H1 "The Local Universe" seminars

The online application form: https://bit.ly/3AtmGP3

or send via email to Wako Aoki (Commission H1 secretary) aoki.wako@nao.ac.jp the following information:

Name and Surname, Affiliation, E-mail, Preferred duration of the talk (Keynote (25 min + 15 min) or Highlights (12 min + 8 min)), Title of presentation, Abstract (<100 word), Preferable approximate dates (months) of presentation, Preferred time of presentation (17:00 UTC, 09:00 UTC, or 01:00 UTC), Personal web-page link or a self-presentation up to 300 words.

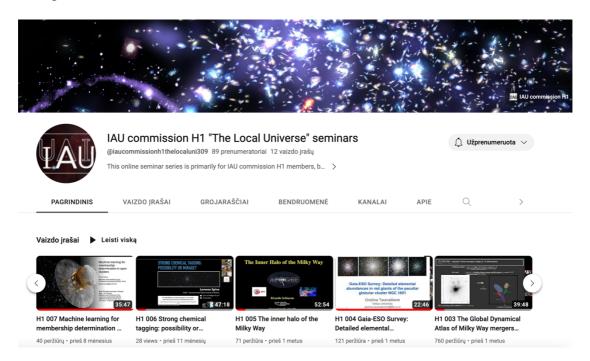
Seminar talks during the reporting period:

1) April 6, 2022, Keynote talk by Lorenzo Spina (INAF- Astronomical Observatory of Padua, Italy), "Strong chemical tagging: possibility or mirage?".

- 2) May 24, 2022, Keynote talk by Q. Daniel Wang (University of Massachusetts, USA), "X-ray galactic ecosystem of nearby galaxies".
- 3) June 6, 2022, Keynote talk by Priya Shah (Maulana Azad National Urdu University, India) "Machine learning for membership determination in open clusters".
- 4) September 15, Keynote talk by Lorenzo Spina (INAF- Astronomical Observatory of Padua, Italy), "Planet engulfment events in Sun-like stars".
- 5) October 19, 2022, Keynote talk by Thavisha Dharmawardena (Max Planck Institute for Astronomy, Germany), "The 3D structure of Star Formation Regions in the era of Gaia DR3".
- 6) November 24, 2022, Keynote talk by Angela Bragaglia (INAF-OAS Bologna), "NGC 6388: combining high-resolution spectroscopy and Gaia".
- 7) December 14, 2022, Keynote talk by Donatella Romano (INAF- Istituto Nazionale di Astrofisica), "The evolution of CNO elements in galaxies".
- 8) February 15, 2023, Keynote talk by Saroon Sasi (University of Andres Bello, Chile), "Shape of the Outer Stellar Warp of the Large Magellanic Cloud Disk".
- 9) March 22, 2023, Keynote talk by Elisa Rita Garro (University of Andres Bello, Chile), "Gaia-IGRINS synergy: Orbits of newly identified Milky Way star clusters".

The seminars are recorded and listed for asynchronous viewing on the dedicated IAU Commission H1 "The Local Universe" Seminars YouTube Channel: https://www.youtube.com/channel/UCyH2KzKFVPmABOIJfgBtJ5g

The channel has 103 subscribers. By April 5, 2023, 13 seminar presentations have been posted and viewed 1450 times.



Potential speakers of the seminars can fill the online application form: https://bit.ly/3AtmGP3 or send their proposals to the Commission H1 Secretary via email.

Conferences and other meetings

The Commission Web Page was updated by a list of selected conferences, workshops, summer schools, and other meetings related to the thematic of Commission H1. The H1 OC member Dante Miniti served in the SOC for the IAU Symposium 377 on "Early Disk Galaxy Formation: From JWST to the Milky Way", that was held in Kuala Lumpur, Malaysia, from 6 to 10 of February, 2023. This meeting was very successful, where some of the first scientific JWST results were presented and future developments were discussed. Panos Patsis has organised the workshop "Spirals and Bars in galaxies", which was held at the Academy of Athens on October 14th 2022 (http://astro.academyofathens.gr/events.html). Priya Shah was a keynote speaker in the 6thMiddle-East and Africa Regional IAU Meeting (MEARIM VI), Cairo, Egypt on February 13-16, 2023. Panos Patsis is a SOC member for the conference "Galactic bars: driving and decoding galaxy evolution", to be held in Granada, Spain from 3-7 July (http://www.galacticbars2023.com/).

Appeal to the scientific community

The Commission Organising Committee is deeply upset for the continuing totally unacceptable and unjustified military invasion to Ukraine by the Russian Federation, in complete disregard for internationally recognized borders, in flagrant violation of international law, and in damaging scientific work and collaboration. We urge all scientists, including those in the Russian Federation, to do their best in stopping the war and call everyone to help our colleagues who suffer from the consequences of the military actions.