



International Spring School program *Modern methods of cosmic distance determination*

Venue: Konkoly Observatory, CSFK, Budapest, Hungary
address: H-1121 Budapest, Konkoly Thege Miklós út 15-17.
time: 12 (Wed) – 15 (Sat) April, 2023
<https://iaus376.org/springschool/>

Chair of the School: Róbert Szabó (scientific issues) szabo.robert@csfk.org
Chief organizers: Susmita Das, Attila Bódi (practical matters) susmita.das@csfk.org, bodi.attila@csfk.org
Organizing committee: IAU Symposium No. 376 LOC: <https://iaus376.org/loc/>

Program:

12 April Wednesday:

9:00-9:20 Registration, orientation

9:20-9:30 Opening speech

9:30-10:30 Santi Cassisi (INAF, Osserv. Astron. di Abruzzo, Pisa, IT) Low- and intermediate mass pulsating stars: an overview of their structural and evolutionary properties

10:30-11:00 coffee break

11:00-11:30 Santi Cassisi (INAF, Osserv. Astron. di Abruzzo, Pisa, IT) Low- and intermediate mass pulsating stars: an overview of their structural and evolutionary properties – **hands-on session**

11:30-13:00 Susmita Das (Konkoly Obs., Budapest, HU) A general introduction to variable stars with respect to period-luminosity relations

13:00-14:00 lunch break

14:00-15:30 László Szabados (Konkoly Obs, Budapest, HU) Plethora of methods for cosmic distance determination -- from astronomical units to gigaparsecs

15:30-16:00 coffee break

16:00-18:00 Shashi Kanbur (SUNY, Oswego, US) On Period-Luminosity Relations – **on zoom**

13 April Thursday:

09:00-10:30 László Kiss (Konkoly Obs. Budapest, HU) Exotic techniques of distance measurements: beyond the PLR domain

10:30-11:00 coffee break

11:00-13:00 Rubina Kotak (Turku University, FIN) Supernovae (and related transients) as distance indicators – **on zoom**

13:00-14:00 lunch break



14:00-15:30 Vincenzo Ripepi (INAF, Osserv. Astron. di Capodimonte, IT) The metallicity dependence of the PL relation for Cepheid and RR Lyrae (in the near-IR bands) variables: recent results and perspectives

15:30-16:00 coffee break

16:00-18:00 visiting the Svábhegyi (public) Observatory with László Kiss, Director General

14 April Friday:

9:00-10:30 László Molnár (Konkoly Obs, Budapest, HU) One does not simply invert Gaia parallaxes – how they are made and how to use them

10:30-11:00 coffee break

11:00-12:30 László Molnár (Konkoly Obs, Budapest, HU) Gaia hands-on session

12:30-13:30 lunch break

13:30-14:30 Louise Breuval (Johns Hopkins University, Baltimore, US) Refining the Cepheid distance ladder with open clusters in the Gaia era

14:30-15:30 Louise Breuval (Johns Hopkins University, Baltimore, US) Measuring the metallicity dependence of the PL relation

15:30-16:00 coffee break

16:00-18:00 Rachael Beaton (STScI, USA) New-energy for variability in old stellar populations: a tour of the upper giant branch and just beyond

15 April Saturday:

09:00-10:30 Attila Bódi (Konkoly Obs., Budapest, HU) Classification of pulsating variable stars based on their Fourier parameters measured by Gaia – **hands-on session**

10:30-11:00 coffee break

11:00-12:30 Attila Bódi (Konkoly Obs., Budapest, HU) Estimating effective temperatures from Gaia Radial Velocity Spectrometer (RVS) spectra – **hands-on session**

12:30 – 12:45 Closing remarks

12:45 – lunch break

