

Work visit of an Indian colleague to Belgium

(09/10/2023-20/10/2023)

[Santosh Joshi](#) (ARIES, India; see picture) came for two weeks to Belgium. He stayed in Brussels where [Peter De Cat](#) (ROB, Belgium) was his host. He mainly used this opportunity to visit colleagues of several BINA partner institutes (ROB, KU Leuven, ULiège, ULB) to discuss and evaluate the progress of ongoing BINA projects, exchange tools for data analysis, and define a road map for the strengthening of existing collaborations and creation of new initiatives. The main scientific interest of [Santosh Joshi](#) is in CP stars. In collaboration with colleagues of the ROB, he searched for existing high-resolution spectra available in the database of the HERMES spectrograph (1.2-Mercator@ORM; La Palma, Canary Islands, Spain) and found data for eight sources observed under the Nainital-Cape survey. KIC8041249 is identified as a new double-lined spectroscopic binary (SB2) for which follow-up observations are scheduled. In collaboration with colleagues of ULiège, the possibilities for the asteroseismic modelling of pulsating CP stars with a moderate rotation and high metallicity were discussed. In this context, a well-defined set of samples from the Nainital-Cape survey catalogue is being prepared to study their opacity profile as it has a major impact on the observed pulsations. In collaboration with colleagues of the ULB, a project focussing on CP stars in binary systems having accurate space photometry is initiated to search for additional clues in the understanding of the origin of chemical peculiarity. [Santosh Joshi](#) participated in the one-day BINA meeting on 10/10/2023 at the ROB where he chaired one of the sessions in the morning and co-moderated the open discussion (with [Peter De Cat](#)) in the afternoon.

