

Telescope and Researcher Potential of Turkey for Collaboration in CV Studies

A. Talat Saygac and Sinan Alis

Istanbul University, Science Faculty, Astronomy and Space Sciences Department,
Beyazit 34119, Istanbul, Turkey
email: saygac@istanbul.edu.tr

Abstract. The Turkish astronomical community has installed several telescopes during the last 10 years. We describe this work and discuss the potential of young researchers in Turkey, with the aim of fostering collaborations in the field of cataclysmic variables and related objects.

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1. Introduction

Until last decade, Turkish astronomers were intensively focused on photometric studies with small telescopes. Now having a state-of-the-art spectroscopic detector (e.g. TFOSC - TUG Faint Object Spectrograph and Camera), there is increased interest in spectroscopic observations as well as spectroscopic data made publicly available or taken through international collaborations. Besides optical studies, there are many groups interested in X-ray and gamma-ray studies. Currently, there are ongoing projects for constructing 4m class optical and IR telescopes. Funding opportunities from universities and nation-wide agencies like TUBITAK (The Scientific and Technical Research Council of Turkey) have increased significantly in the last years. In this paper, we would like to introduce the main observational sites and telescopes as well as ongoing projects.

2. Observatories and Telescopes

TUBITAK National Observatory (TUG). The national observatory located in the southwest of the country has an altitude of 2,500 meters above sea-level. Outstanding astronomical conditions with 5 telescopes vary in size from 0.4m to 1.5m. The Russian-Turkish telescope (RTT150) is the main telescope at the site. It is equipped with many high quality detectors such as TFOSC and Andor CCD cameras. Diameters of the other telescopes at the observatory are 1m, 0.6m, 0.45m, and 0.4m. The site also hosts the NASA funded project ROTSE designed for GRB afterglows. More information for the site can be obtained through the website (<http://www.tug.tubitak.gov.tr>).

Çanakkale Astrophysics Observatory. Located in the northwestern part of the country and involved with the physics department of the Çanakkale Onsekiz Mart University. It hosts 1.2m, 0.6m, 0.4m and 0.3m telescopes. Altitude of the observatory is 410 meters. (<http://physics.comu.edu.tr/caam/>)

Istanbul University Observatory. Besides the Beyazit station which is now used only for solar observations, IUO has a 0.6m telescope installed at Çanakkale Astrophysics Observatory with a special agreement between the two corresponding universities. (<http://gozlemevi.istanbul.edu.tr/>)



Figure 1. Upper panel: TUBITAK National Observatory (left), IUO's 0.6m telescope and Canakkale's 1.22m telescope (right). The largest telescopes of Turkey (lower panel left to right): RTT150 (TUG), T122 (Canakkale), T100 (TUG), IST60 (IUO)

Ege and Ankara University Observatories. Both observatories are at the frontiers for variable star studies in Turkey. Researchers are very well experienced with photometric and spectroscopic studies of chromospherically active stars, eclipsing binary stars and pulsating stars. Several telescopes with diameters around 0.4m are being used at the moment. Plans exist for having larger instruments.

(<http://astronomy.ege.edu.tr/EUGUAM/TR/>; <http://rasathane.ankara.edu.tr/>)

Other Institutes. Besides observatories listed above there are many groups interested in CV studies. Here we can only list those institutes: Middle East Technical University Physics Department, Bosphorus University Physics Department, Akdeniz University Physics Department, Erciyes University Astronomy and Space Sciences Department, Inonu University Physics Department, Malatya Inonu University Astronomy and Space Sciences Department, and Erzurum Ataturk University Astronomy and Space Sciences Department.

3. Future Projects

Currently there are two big projects initiated in Turkey. The first one is the 3.5m optical telescope project which is led by the national observatory (TUG). This telescope will be installed at TUG's site at Antalya. The second one is a 4m class IR telescope of Erzurum Ataturk University. The latter is planned to be installed at Erzurum with an altitude of 3170m above sea-level. The project is called East Anatolian Observatory (<http://dag-tr.org/>).

4. Conclusions

Recent developments in Turkey with existing researcher potential make it worthwhile to initiate collaborations in CV studies. The authors are willing to help start such collaborations between outside research groups and many institutes in Turkey.

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