Bull. Astr. Soc. India (2007) **35**, 173–174

Editor's foreword

N. Kameswara Rao*
Indian Institute of Astrophysics, Bangalore 560 034, India

It has been almost seven decades since Meghnad Saha emphasized the importance of the UV region for exploring the sky. The first Indian attempt for this exploration is finally on the verge of becoming a reality through a collaborative effort with the Tel Aviv University. TAUVEX, the UV payload built by the Israeli space agency consisting of three co-aligned telescopes of 20 cm aperture, is mounted on the Indian satellite GSAT-4 and expected to be launched sometime in early 2008. TAUVEX is designed to image the sky in the wavelength range 1300 to 3000 Å with a spatial resolution of $6 - 10$ arcsec. This is a joint science effort between two nations, the hardware comes from Israel and the software for operations and image reduction comes from India. TAUVEX has also the additional capability relative to GALEX of imaging the sky in five separate wave bands using filters, one of which is centered on the 2200 Å ISM feature.

A joint Indo-Israel workshop was held at the Indian Institute of Astrophysics, Bangalore during March 2006 to discuss various issues related to instrumentation, calibrations, orbital constraints, and the possible scientific programmes that could be attempted jointly and independently. About 40 participants from both countries took part in the workshop. The papers that follow are some of the contributions that were presented at the workshop.

The first two papers by Murthy et al. and Brosch et al. discuss in detail the payload, filters, detectors and their calibrations. This is followed by the contribution of Almoznino who discusses the very important aspect of the mission—the way to conduct the observations, the scattered light and the background expected at different orientations, at different parts of the orbit, at different times of the year, leading to the best way deep imaging survey could possibly be conducted. The rest of the papers discuss various science programmes that could be attempted with varying degrees of detail and focus (or lack of it). Some are very sketchy and some are aimed at multi-wavelength studies, unmindful of the instrumentation available on TAUVEX.

Although the life of the mission is expected to be between five to seven years, it is

*e-mail: nkrao@iiap.res.in

prudent, as particularly emphasized by Brosch et al. to have a few significant programmes that are best carried out in the first one to two years. Deep surveys of the parts of the sky (the celestial poles) could probably be one such, in three to four filter bands. This would not only provide large amount of data but also be of interest to astronomers of both countries. The variability studies of AGNs and BLAZARs at various redshifts at various time scales seem to be of common interest that also partly could be realized from deep surveys. The mapping of dust extinction in the Galaxy with respect to distance and position, as described by Maheswar et al. would be an important programme that utilizes the multi-band capability, including the 2200 Å feature.

It is hoped that the next workshop would bring out programmes that are more specific to the instrumentation available on TAUVEX with due consideration to the calibrations and constraints that exist.