

WET IN CHINA

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Abstract

Asteroseismology was a blank research field in China before joining the WET network. There are several groups at the Beijing Observatory working in stellar astrophysics, especially the group headed by Prof. S.Y. Jiang, which is mainly engaged in the photoelectric photometry of Delta Scuti-type variable stars. We have participated in some observing runs of DSN. Dr. Yang Binling has introduced us to Prof. R.E. Nather, and since then the astronomers of the Beijing Observatory were involved in asteroseismology and WET campaigns. In late 1994, the agreement for cooperation on asteroseismology was established between Prof. R.E. Nather and Prof. Q.B. Li, director of the Beijing Observatory. The Observatory has become a member of the WET network.

The first WET observing run in China was XCOV12 in May 1995. For this, Prof. R.E. Nather visited the Beijing Observatory with his portable 3-channel photometer, which was attached to the 2.16 m telescope at the Xinglong station of the Beijing Observatory. Ed Nather and Chinese astronomers were lucky to get four clear nights during this first WET run in China.

The Xinglong station is the main observational base of China for optical and infrared observations. It is located in the Yansan mountain area of Northern China, at 117°34'.5 (E), 40°23'.7 (N) and altitude of 960 m above the sea level. This area is one of dryest areas in China and it has more than 220 clear nights per year.

In this station the following telescopes are located: 2.16 m, 85 cm and 60 cm optical telescopes, 1.26 m infrared telescope and 60/90 cm
Schmidt camera. Among them, the 2.16 m and 85 cm telescopes may be used for the WET runs. The main properties of these telescope are:

1. The 2.16 m telescope. The aperture of the main mirror is 220 cm and the f/ratio is 3. Cassegrain and Coude focuses are available. For the f/9 Cassegrain focus there is a direct CCD imaging camera with a TEK1024 CCD chip and a low/intermediate resolution spectrograph with a CCD camera. A new 3-channel photometric photometer, developed at the Beijing Observatory with the help of the McDonald Observatory is available for WET observations. At the Coude focus there is a two-channel echelle spectrograph.

2. The 1.2 m infrared telescope. An InSb infrared photometer and CVF spectrometer are available at its f/30 Cassegrain focus.

3. The 85 cm telescope with a new 3-channel photometer at the Cassegrain focus with f/ratio of 10.

4. The 60/90 cm Schmidt camera. A Loral 2048×2048 CCD camera is placed at its prime focus for the joint project called BATC (Beijing, Arizona, Taiwan and Connecticut) for a multi-band sky survey.

5. The 60 cm telescope. A TI215 CCD camera with 1024×1024 pixels is mounted at its prime focus, f/ratio is 4.2 and FOV is 17'. It is mainly used for a survey of supernovae and a search of variable stars in stellar clusters and star forming regions.

All facilities, except of the Schmidt camera, are available both for domestic and foreign astronomers. We hope the WET observations will gain some telescope time at the Beijing Observatory in the future.