PLANS FOR VARIABLE STAR WORK AT THE UNIVERSITY OF RHODE ISLAND

WILLIAM S. PENHALLOW
Physics Department
University of Rhode Island
Kingston, RI 02881

Astronomy at URI in recent years has centered around the development of a 16-inch reflector similar in design to the U.S. Naval Observatory 61-inch Astrograph. The original tube, mirror cell and mounting were designed and built by members of Skyscrapers, Inc., the astronomical society of Rhode Island for their Seagrave Memorial Observatory. With the death of some of the prime movers, it became doubtful that such a project would ever be completed. Wanting to see the telescope completed, these parts were offered for sale to URI by the society. The mirror cell was then modified to accept a Cave 16-inch f/10.5 primary mirror with a 6-inch central perforation. An 8-inch optical flat was installed as the secondary. This combination gives a 2° field of view. Byers slip clutches are used on both axes. The heavy welded steel construction easily allows for several hundred pounds of auxiliary equipment. The instrument can be used visually, photographically, spectrographically as well as with a single channel PEP and a differential PEP. The latter instrument makes use of two Pacific Photometric Photometer heads mounted at the mirror end which can move radially in or out perpendicular to the optical axis as well as rotate about it as a unit. These motions are produced by three separate DC Bodine motors. Hence, simultaneous observations of a variable and a comparison can be made. Work with eclipsing variables, novae, quasars and active galaxies is planned.
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