

ABSTRACTS OF PAPERS PRESENTED AT THE
74TH SPRING MEETING OF THE AAVSO IN SEATTLE, WA
JUNE 21 - 23, 1985

THE VISUAL BEHAVIOR OF THE DWARF NOVA AH HERCULIS

LEWIS M. COOK
1730 Helix Court
Concord, CA

Abstract

The variability of the Z Camelopardalis dwarf nova AH Herculis is examined for the period 1963 to 1984. The average interval between outbursts is determined to be 19.4 ± 0.3 days. The frequency of outbursts remains constant for varying periods of time and changes abruptly at intervals of months to years. The outburst period varies from 15.9 to 21.8 days. The outbursts display a bimodal distribution with a tendency to alternate between narrow and wide outbursts. Wide outbursts are less common when the frequency of outbursts is high. Five stillstands lasting from 33 to 130 days were observed. The stillstands occurred when the frequency of outbursts was high.

Correlation coefficients were determined for brightness, length of outbursts and length of time at minimum between outbursts, and for outburst cycle lengths. The correlations are discussed.

(Text of this paper will appear in full in a later issue of JAAVSO.)

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A TOUR OF AAVSO HEADQUARTERS

KEITH H. DANSKIN
77B Christian Hill Road
Amherst, NH 03031

Abstract

AAVSO, 187 Concord Avenue, Cambridge, MA, 02138, 617-354-0484. To most of us it's a mailing address and friendly voices on the phone. Ever wonder what it looks like? Where your dues go? Where all those T-shirts come from? How many floppy diskettes the computer has? Where Janet parks her car? This illustrated tour of Headquarters will dispel all such mysteries.

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STAR FIELDS VIA CIRCLES

EDWARD A. HALBACH
720 Ramshorn Drive
Longs Peak Rt.
Estes Park, CO 80517

Abstract

Can you find an "f" chart field with the first look into the eyepiece? Only good circles and a sturdy mounting correctly aligned

make this feat possible.

At 800 feet, I use a portable 10-inch reflector under the open sky as a dome, with a mounting that allows setup in less than five minutes on any of three locations, correctly oriented for immediate use, plus a portable data desk and a chart holder for 1800 charts. With a heated turret eyepiece holder, clothing tailored to fight the cold, and a unique automatic on-off flashlight, observing is a pleasure down to 10 degrees Fahrenheit in the open.

With a poor memory, but with recourse to good charts, 500 to 700 variables down to 14th magnitude are observed each month before making repeat observations. Fields are found and observed at the rate of 12 to 15 per hour using only (2000) coordinates.

Recording and reporting of data is presently being computerized.

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A NEW 3.5-METER OPTICAL TELESCOPE

EDWARD J. MANNERY

Astronomy Department
University of Washington
Seattle, WA 98195

Abstract

The Astrophysical Research Consortium (ARC), a group of five universities, is currently building a 3.5-meter, altitude/azimuth telescope designed for simultaneous mounting of numerous instruments. The University of Washington, one of the ARC members, is responsible for the design and installation of the telescope itself. Deployment of different instruments is accomplished in minutes, allowing quick response to transient events, as well as permitting more efficient scheduling in general. Remote operation from member university campuses is also an important feature. The telescope is scheduled for installation at Sacramento Peak, New Mexico, in the summer of 1988.

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RECENT VARIABLE STAR RESEARCH AT THE UNIVERSITY OF WASHINGTON

MARIO MATEO

Astronomy Department
University of Washington
Seattle, WA 98195

Abstract

A wide variety of variable star research is being conducted at the University of Washington. These programs include the study of cataclysmic variables, Miras, recurrent novae, peculiar A stars, Cepheids, and RV Tauri stars. Descriptions of a number of these projects are presented. The role of past and future AAVSO observations is mentioned.

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RARE BEHAVIOR OF SOME VARIABLES

JANET AKYÜZ MATTEI
AAVSO
187 Concord Avenue
Cambridge, MA 02138

Abstract

During the past six months noteworthy behavior has been exhibited by a number of AAVSO program stars. Among these are the outburst of Nova Vulpeculae 1984 #2, the supermaximum of HT Cassiopeiae, the outburst of RZ Leonis, and the significant fading of CH Cygni. These events are discussed.

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PHOTOMETRY OF BRIGHT GALACTIC NUCLEI

WILLIAM E. NEWSOME
214 S. Bozeman
Bozeman, MT 59715

Abstract

The nuclei of galaxies are often the sites of dramatic, high energy phenomena, and many have been shown to be optically variable. A program has been established at the Lewis and Clark Observatory to monitor established active nuclei, and also to search for variability in the bright nuclei of many nearby galaxies, many of which show signs of "activity."

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CONTRIBUTIONS OF AAVSO OBSERVERS TO
CATAclysmic VARIABLE OBSERVATIONS

RONALD S. POLIDAN
Lunar and Planetary Laboratory
University of Arizona
Tucson, AZ 85713

Abstract

The results of a joint AAVSO, Voyager, and IUE observation program on SS Cygni are reported.

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