

## **Abstracts of Papers Presented at the 92nd Spring Meeting of the AAVSO, Held in Tucson, Arizona, April 23–26, 2003**

### **Chandra Spectroscopic (HETG) Observations of SS Cyg and U Gem in Quiescence and Outburst**

**Janet A. Mattei** (deceased March 22, 2004)  
*AAVSO, 25 Birch Street, Cambridge, MA 02138*

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Chandra observations of recent outbursts of both SS Cyg and U Gem were triggered thanks to AAVSO Observers' notification. The authors obtained excellent spectroscopic data. In this paper the spectroscopic data obtained with the Chandra High Energy Transmission Grating for SS Cyg and U Gem during quiescence and outburst will be discussed, including spectral similarities and the differences between these two systems.

### **The National Virtual Observatory/SegNVO Project**

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The National Virtual Observatory (NVO) represents a novel type of scientific organization for the era of information abundance. It has a broad range of interfaces and constituents, including amateur astronomers. The AAVSO is working with the Science Education Gateway, which is funded by NASA, to discuss and analyze the needs, perceptions, and opinions of astronomers on the potential use of the NVO Project.

### **NVO: Survey for Amateur Astronomers**

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The National Virtual Observatory (NVO) has enlisted the help of the AAVSO in an effort to determine which needs of the amateur community the NVO can meet. As

part of this project, the AAVSO will be conducting a handful of in-depth, face-to-face interviews with meeting attendees in preparation for conducting a wider survey among the membership during the summer.

## **The AAVSO High Energy Network**

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The AAVSO is expanding its International Gamma-Ray Burst Network to incorporate other high energy objects such as blazars and magnetic cataclysmic variables (polars). The new AAVSO High Energy Network will be collaborating with the Global Telescope Network (GTN) to observe bright blazars in support of the upcoming GLAST mission. We also will be observing polars in support of the XMM mission. This new network will involve both visual and CCD observers and is expected to last for many years.

## **GRB030329: AAVSO's Contribution to the Light Curve— A Statistical Analysis**

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GRB030329 offers the first large-scale action of the AAVSO GRB Network [now, High Energy Network]. An analysis is performed of the AAVSO's contribution to the overall professional-amateur light curve of this exceptional gamma-ray burst.

## **Reach for the Stars: Inspiring a New Generation in Astronomy**

**David H. Levy**

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With programs like *Hands-on Astrophysics*, the AAVSO has been active in getting young people interested in astronomy and the night sky. It is wonderful and very important that we do programs like these, especially in these uncertain times when people look beyond themselves to the stars in the hope of finding reason for optimism and hope.

## **Tests of CCD Photometry With a Small Aperture Telescope**

**Gary Billings**

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I describe the hardware, software, and data resulting from ongoing tests of automated CCD photometry on wide-field images acquired using a telephoto lens from a city location.

## **Preparations for Study of Two Suspected Variables: WW UMa and CV UMa**

**Paul Temple**

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WW UMa and CV UMa are variables about which little is known. CV UMa is listed in the *AAVSO Variable Star Atlas* as a Mira star, and WW UMa is listed as unknown, though it is likely a long period variable of some sort. A study of these two stars is definitely needed. Data from the various star catalogs are sometimes conflicting.

Information from the AAVSO as well as several catalogs was put together to begin the study of these stars. Finder and comparison charts were prepared from USNO-B as well as Hipparchos, Tycho, and the *Guide Star Catalogue* using Guide 7 software. Comparison stars were chosen using  $B-V$  colors between 0.3–1.0 checked by USNO-B formulae as well as the other catalogs. Observations will be made once a night, weather permitting, by a TASS Mark IV telescope located in Flagstaff, AZ in  $V$  and  $R$  bands. From this, a preliminary light curve will be produced and much needed information will be generated.

## **Four Asteroids and a Question Mark: Chasing Ross' Variables**

**James Bedient**

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F. E. Ross published a series of papers in 1925–1931 listing 379 new variable stars discovered during his search for high-proper-motion stars. In the years since then, 271 have been studied and catalogued in the *General Catalogue of Variable Stars*. This paper identifies four of the remainder as asteroids, and discusses interesting observations of another.

## **Searching for Supernovae in the Sky and on the Web**

**Wayne P. Johnson**

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A supernova (SN) is the ultimate variable star. At its peak a SN is about 20 magnitudes brighter than its progenitor star, which itself is around 10 solar masses. Unlike common novae, supernovae (SNe) occur only once. This paper discusses the cause of SNe at a very high level, techniques to find them in the sky and estimate their brightness, and where to find information about them on the Internet.