

**Chagrin Valley Astronomical Society**

**Meeting Minutes for April 1<sup>st</sup>. 2017**

**Sunnybrook Park**

**Call to order**

President Marty Mullet opened the meeting at 7:30. We had 15 members and 2 guests present.

**Secretary's Report**

March minutes have not been posted to the website.

**Treasurer's Report**

Steve Fishman reported the following:

Bank balance	\$ 2,004.09
Marty fund	\$ 5,687.00
John Gorka fund	\$ 600.00
North Observatory Automation fund	\$ 625.00
Petty Cash	\$ 25.00
Total:	\$ 8,941.09

Expenses for the month

\$ 66.94 phone bill

\$ 65.81 Electric

\$131.00 Raffle Tickets

\$181.19 Router, Brochures, misc. electronics

\$500 donation from Chagrin Valley JC's

**Observatory Director**

Shutter on the Dome needs to be serviced (probably nothing more than adjustment). VERY we, if you don't have 4 wheel drive you will probably not make it up the hill.

**Observations Director**

The Monthly Sky Calendar is on the website. E-mail sent out. Steve went over the monthly sky calendar.

## **Editor**

If you have anything for the Valley Skywatcher please send to Marty or Ron. Ron hopes to publish by the June meeting.

## **Public Relations – Ian**

We will have a display of 22 astrophotographs (Beyond the Blue) Newberry Library starting the end of April.

## **No constellation of the month.**

## **Old Business:**

Raffle (drawing at our June OTA Meeting) for a donated 90mm Levenhuk Strike PRO Maksutov-Cassegrain Telescope on a German equatorial mount and Levenhuk Sherman Pro 12x50 Binoculars. Tickets are \$2 each / 6 for \$10

## **New Business:**

We'll have our table-top display at Cleveland Museum of National History on Astronomy Day – April 29<sup>th</sup>.

Begin discussion on changing Meeting structure -

1. Officers meet once a Month to discuss “business” issues
2. General Meeting once a Month to discuss “Astronomy” – presentation at every meeting

**Next meeting will be May 6<sup>th</sup>. at Indian Hill, 8:00 pm**

**Meeting adjourned at 8:06pm**

**Our Speaker for the evening was CVAS Member Dan Rothstein – his topic “4 Red Shifts”**

Dan explained that the Doppler Effect is different for sound - something moving through a medium -and light moving through a vacuum (The Doppler effect for light is symmetric, for sound it is asymmetric).

He continued by explaining the how light Doppler redshifts ( due to motion through space away from the observer); gravitational redshifts ( due to light leaving a strong gravitational field); and cosmological expansion ( where space itself stretches as light travels through it). Finally show how Z (the relative shift) is effected by each of these.