



# Penobscot Valley Star Gazers

An Astronomical Society of Central Maine

<http://www.gazers.org>

August 2009

## Recipe for the Universe II at the University

The next meeting of the PVSG will be held on the Orono campus of the University of Maine on Monday, August 10, 2009 at 6:30 p.m. We will meet in the conference room (114) of Bennett Hall where we will hear Dave finish his discussion of the book *Just Six Numbers*.

### Just Six Numbers

July 13, 2009

The meeting was brought to order at 6:35 pm with 15 members present. The President introduced David for, as it turned out, part I of his "Just Six Numbers" presentation. Dave led off the talk with some questions concerning famous people in Astronomy. There was Annie Jump Cannon whose cataloging work led to her developing of the Stellar Classification System (O,B,A,F,G,K,M). Henrietta Leavitt discovery of the "Period-Luminosity relationship" provided an important measure for determining stellar distances. A young 18 year old named John Goodricke suggested that the then variable star Algol was indeed an eclipsing binary winning him praise before his early and untimely death. All three had the fact that they were completely or almost completely deaf in common.

Dave's much anticipated talk on Martin Rees' book, "Just Six Numbers: The Deep Forces That Shape the Universe" concerns the author's belief that all the important essence of the Universe can be boiled down to just 6 numbers (actually, as Dave relates, 3 ratios and three numbers) that were created with the Big Bang. If these six numbers were changed, if altered by the smallest amount, it would change the Universe as we know it. The Six Numbers are:

$N$  = the ratio of the strength of the electrical force to the gravitational force

$\epsilon$  = the efficiency of Nuclear Conversion H to He

$\Omega$  = the ratio of density of the Universe

$\lambda$  = A cosmological constant that explains the rate of expansion

$Q$  = the degree of structure in the Universe

$D$  = the number of spatial dimensions (currently three)



These six numbers, again, in existence since the Big Bang, if altered in even the smallest way would not allow the Universe we live in and observe to exist. Part I was extremely interesting and all are looking forward to August's meeting to hear Part II. We thank you Dave. Now I know why Dick has been anticipating this talk so much.

Old Business: A date was set for the Sun Fest this August

on Saturday the 8th, starting at 2pm. Dale and Julie graciously are hosting it this year. Bring your scopes or just show up for some solar observing and, if interested, some nice dark skies in the evening. Nothing to compare to being out to sea on the deck of a rocking US Navy destroyer under black out conditions, but I am sure the view from your home will be wonderful. Dale and Julie will be sending out directions as we get closer.

There was a reminder that we should start planning for some function on the second Astronomy Day on the 24th of October (that's a Saturday folks). It was suggested that we contact Robin of the Challenger Learner Center to see what they are doing and join forces.

The Bangor Land Trust would like to have a Star Party set up some time this summer either at their parcel of land out off from Essex Street or anywhere else in Bangor. Wade, Dave and Mike can be contacted for

### On the Schedule

(Items Subject to Change)

#### PROGRAMS

#### STAR PARTIES

August 8 (Fair - sitting outside weather - only): Sunfest, 2pm on.

August 21 (co): Bangor Land Trust Star Party, 8:30 pm, West Penjajawoc Grasslands or Fox Hollow, Wade

September 18 - 21: Night Sky Festival, Acadia National Park

?October 24: Astronomy Day event somewhere.

First date is primary, second is rain date; ? Tentative; (rs) rain or shine; (co) clear only

more information. I am sure they would appreciate some assistance in deciding on a date and time (probably a Friday).

The DVD "Eyes for the Skies" was returned to the club's library. Unfortunately your Secretary snagged it this week to take a look. If you would like to have it after me, just email me and I will get it to you.

The Treasurer's report was given and accepted. Some notes from the Treasurer include:

1) Renewals for Sky and Telescope Magazine no longer need to go through the club. You can send them in yourself as the publisher has a list of club members.

2) The Astronomical League cashed our check so the club is and official member of the league.

3) Start thinking dues. They are coming up for renewal here soon.

There was no Secretary's report to consider this month (Sorry).

New Business: The next meeting will be at Bennett Hall, Rm 114 (tentatively) on the University of Maine Campus. The speaker will be Dave presenting Part II of his "Just Six Numbers" talk.

Dave received a postcard announcing the Annual Summer Open Studio Exhibition of Greg Mort on 1 & 2 August, 10am to 5pm at Fieldstone Castle, 129 Marshall Point Lighthouse Rd, Port Clyde, Maine 04855. An extraordinary Artist! Visit <http://www.gregmorteditions.com> for more information.

Observing Reports: A reminder that August 13th thru the 16th is STELLAFANE at Springfield, VT. Great viewing and the opportunity to see some of the largest amateur telescopes that get this close to Maine. For more information on costs, directions and schedule go to <http://www.stellafane.com>. You can also talk to Ralph, Wade, Peter, Dick or Dave for first hand information.

Great viewing for Saturn while its rings are edge on and Mars is at its closest. If the clouds and weather cooperate then opportunity for some great events are happening in July and August. On the 14th of August, about twenty minutes to 5am, the Moon's lighted limb will start passing in front of the Pleiades. Again if the weather cooperates this should be a great opportunity to observe a fine occultation.

The meeting was adjourned at 8:33pm and members of the club moved to Governor's for refreshments.

David

## **E-mail Excerpts**

Club notes sent by e-mail since the last meeting  
Simply for the record and for those for whom we have no e-mail addresses

### **Audrey's Back in Town**

Have a great time, everyone! Wish i could be there too. I fly in to Portland the 13th and will be driving up to Bangor area to family, then go back the 24th. Maybe I can connect with some while up there? Audrey

### **Land Trust Star Party**

Any who would be able to assist Friday, August 21; start time @8:30pm, let me know. Thanks, Wade

To: Wade Subject: Re: Bangor Land Trust event.  
At this morning's meeting, we decided that the August 21st date would work better for our group so that we can get out publicity for the event. The event would be held at West Penjajawoc Grasslands or Fox Hollow. Thank you for making the arrangements for this event. Shirley E.

### **Acadia Festival**

The Acadia Night Sky Festival is now on Facebook. Anyone can visit the site, you do not need to sign up. Highlights include: \* Up to date event listing with map links. \* Tyler Nordgren's photo gallery showcasing the 14 images selected for his exhibition and Auction. \* Links to 2009 Online Poster Sales \* Volunteer opportunities.  
<http://www.facebook.com/pages/Acadia-Night-Sky-Festival/105245027141> Peter L.

## PVSG Sunfest 8/8/09

WHAT: FOR NEWER MEMBERS & THOSE OF YOU WITH SHORT MEMORY SPANS, SUNFEST IS THE PVSG'S ANNUAL DAYTIME GET TOGETHER. OF COURSE, IF THE SKIES ARE CLEAR WE WILL CONTINUE INTO THE EVENING FOR SOME NIGHT SKY VIEWING.

WHEN: SATURDAY AUGUST 8<sup>TH</sup> 2PM TO ?????  
 WE WILL PROVIDE:  
 ICE TEA & LEMONADE

PAPER GOODS  
 POTATO SALAD  
 A GRILL  
 GUESTS BRING:  
 MEAT TO GRILL  
 A DISH TO PASS - SALADS, MUNCHIES,  
 APPETIZERS & DESSERTS  
 LAWN CHAIR (WE HAVE A FEW)  
 FAIR (SITTING OUTSIDE) WEATHER ONLY

Park Here.  
 Use door adjacent to parking lot.

## Meeting Location 8/10/09

