



Focal Point



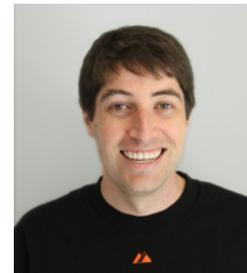
April, 2013

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The April Membership Meeting

The next General Membership Meeting of the MAS will be held on Friday, **April 19th**, at UWM, Physics building, at 1900 E Kenwood Bld. (parking available in the Science Parking Lot.). The room 133 is located next to the Manfred Olson Planetarium entrance. The meeting will start at 8:00 PM, immediately following the Board Meeting.



The speaker of the night will be **Dr. Brian Morsony** from the Department of Astronomy at UW-Madison, about the Jet-

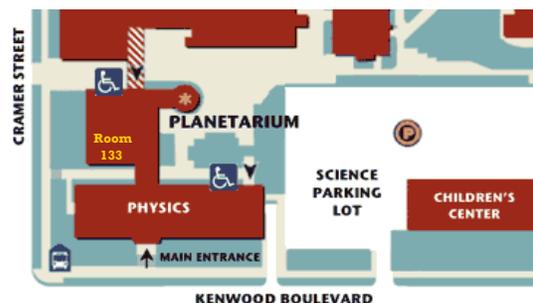
Driven Stellar Explosions.

2013 Public Observing Night Schedule

The first public observing night is scheduled for May 10 at 7:30PM. Topic: **The Inner Planets**. The evening will include a PowerPoint presentation about the topic by Lee Keith, and viewing thru the telescopes if the weather permits. We will collect a parking donation of \$5/vehicle. Also, we will distribute Public Night flyers, and Membership Application Forms in an attempt to recruit new members. The event will be held in rain, shine, and starlight. The kind help of MAS members during the night is encouraged and highly appreciated.

You can find the 2013 Public Night Flyer attached at the end of this newsletter. Please make some printouts if you can and distribute them.

2013 Public Observing Nights	
May 10, 19:30	Inner Planets Lee Keith
June 7, 18:00	Our Energetic Sun Brian Ganiere
August 9, 19:30	Meteor Showers Celeste Keith
September 6, 19:30	Deep Sky Objects Tamas Kriska
September 27, 19:30	Constellation Culture Sue Timlin
October 11, 19:30	The Moon Neil Simmons



The winter meetings of the MAS from January through April will be held at the University of Wisconsin-Milwaukee Physics building located at the corner of Kenwood and Cramer. Starting from May the meetings will return to the MAS Observatory in New Berlin.

Treasurer's Report

The WE Energies bill for the previous month was \$105.67.

The income from GE Foundation matching donation was \$72.00.

Currently the checking account balance is at \$5721.02. The Albrecht fund balance as of February 31 is 8214.28. We have \$2065.38 for discretionary spending.

Respectfully Submitted,
Neil Simmons, Treasurer

Election Meeting

The Milwaukee Astronomical Society will hold its annual election meeting on **May 31, 2013, 8:00 pm**, at the Observatory. The general membership will elect four members to fill Director positions for three year terms. The new Board of Directors will then elect members to fill the offices of President, Vice President, Treasurer, and Secretary for the coming year. One does not have to be a Director to be an officer. The Society also needs members to fill committee chairs, such as for Publicity & Outreach.

Three Directors whose terms expire in May are eligible for re-election. One of the three has relocated out of state, and will not seek re-election. The fourth Director has served two consecutive terms, and is not eligible for re-election.

The meeting chair will request nominations for Director from the floor. We strongly encourage members who have an interest in becoming more active in the Society to run for Director or officer positions. New members can bring fresh ideas and renewed energy. Please feel free to contact any Director or officer for more information.

Meeting Minutes

Held on March 15st at the UWM, Milwaukee.

The meeting was called to order at 8:03 PM by Vice President, Brian Ganiere.

Minutes of the February 15th General Meeting, was read and approved.

The **Treasurer's Report** was read by Treasurer, Neil Simmons. Copy attached.

Observatory Director's Report - Despite lots of snow, the Observatory made through the winter without any damage to the equipments. The work of those who did snow blowing during the winter was thanked.

Old Business - The Board hammered out the 2013 Public Nights schedule, which will be put on the website. Printed flyers will also be available and should be distributed. Also see the last page of this newsletter!

New Business - Lee Keith and Dan Yanko reported seeing the Panstarrs comet tonight.

Announcement - The Annual Picnic will be held on July 27th at 4PM at the Observatory.

The meeting was adjourned at 9:40 PM

The Program Ralf Kotulla, a postdoctoral fellow from the Center of Gravitation and Cosmology at the



Department of Physics and Astronomy at UWM gave a presentation entitled The One Degree Imager.

Respectfully Submitted,
Agnes Keszler, Secretary

In the Astronomical News

Planets Amidst the Noise

Tau Ceti's planets were not supposed to be there. They revealed themselves when Steven S. Vogt, astrophysics professor at UC Santa Cruz, and his collaborators were testing a new noise-analysis method on spectrometer data to calibrate their technique. Indeed, the team of 15 astronomers had picked Tau Ceti specifically because meticulous observations strongly suggested the star had no planetary system.

From the earliest days of the hunt for exoplanets almost 20 years ago, astronomers suspected that evidence of Earth-like planets might be buried in the noise of spectroscopic measurements of stellar radial velocities (stars' velocities in space toward or away from us). Such noise arises from flares and other activity on a star's surface.

Earth-like planets are low mass compared to stars. Even so, planets revolve not around a host star's center (axis of rotation); instead, both star and planets revolve around the planetary system's barycenter (center of mass). The gravitational mass of a planet throws a star's weight around just a little, even though the bigger mass is in control.

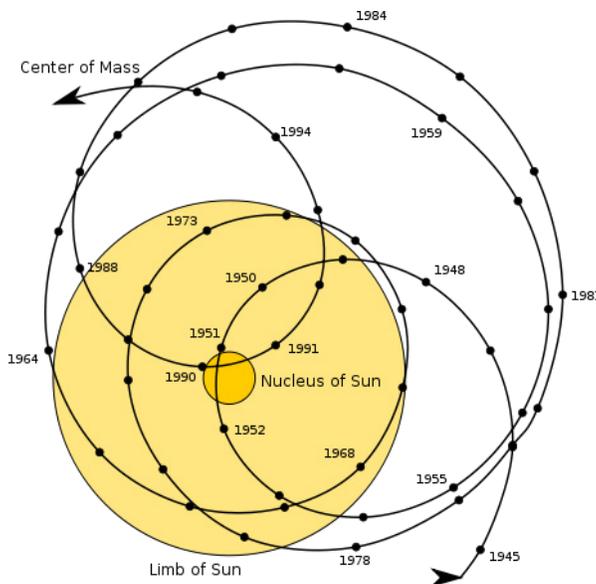
The barycenter for our own solar system, for example, slowly wanders from near the center of the Sun to farther than a solar radius above the Sun's surface: when all the planets are on the same side of the solar system as Jupiter, the barycenter is farther from the center of the Sun toward Jupiter than it is when

all the planets are on the opposite side of the solar system from Jupiter. In other words, the Sun itself is doing a slow dance like a meandering box step of hundreds of thousands of kilometers around the solar system's barycenter.

In the 1980s, exoplanet hunters began to wonder whether the barycentric wandering of a distant star could betray the existence of planets. Would it be even detectable? Most stars speed toward or away from Earth by 10,000 or more meters per second. A star's barycentric wandering due to the pull from an orbiting Earth-sized planet, however, would speed or slow that RV by under a meter per second, Vogt noted. But it might be measurable by a precision spectrometer, such as the High Resolution Echelle Spectrograph (HIRES) Vogt had designed, built, and used at Keck Observatory for 20 years. Its 25-megapixel CCD detector measures Doppler shifts of spectral lines finer than 1 part in 300,000,000, a precision of stellar RV to under 1 meter per second.

When the group applied the computational

techniques to Tau Ceti's runs of spectrometry data as a dry run for the stellar surface noise calibration, "five statistically significant planet-like signals popped out!" The signals suggested the planets were not much bigger than Earth, with the outermost two e and f being in the habitable zone where water could be liquid. The team is now applying their new techniques to runs of RV data for other nearby stars. —Trudy E. Bell, M.



The Sun moves around the barycenter (center of mass) of our solar system, depending on the positions of the planets. Detecting barycentric movement of other stars from precision radial velocity (RV) measurements can reveal the presence of Earth-mass planets; the pattern of movement can reveal number, masses, and orbits. Credit: Carl Smith, Rubik-wuerfel.

Adopt a Telescope Program - Signup Sheet

	Adoptee	Scope	Location
1	Sue Timlin	18" F/4.5 Obsession	Wiesen Observatory
2	Neil Simmons	12.5" F/7.4 Buckstaff	B Dome
3	Russell Chabot	12.5" F/9 Halbach	A Dome (Armfield)
4	Dan Yanko	18" F/4.5 Obsession (Kyle Baron)	Albrecht Observatory
5	Tamas Kriska	25" F/15 Zemlock	Z Dome
6	Henry Gerner	12" LX 200	Tangney Observatory
7	Jeffrey Fillian	14" Z-Two scope	Ray Zit Observatory
8	Kevin & John McCarthy	10" LX 200	Jim Toeller Observatory

At Your Service

Officers / Staff

President	Vacant	
Vice President	Brian Ganiere	414-961-8745
Treasurer	Neil Simmons	262-889-2039
Secretary	Agnes Keszler	414-475-6267
Observatory Director	Gerry Samolyk	414-529-9051
Asst. Observatory Director	Russell Chabot	414-881-3822
Newsletter Editor	Tamas Kriska	414-475-6267
Webmaster	Robert Burgess	920-559-7472

Board of Directors

Robert Burgess	920-559-7472
Russell Chabot	414-881-3822
Vacant	
Chris Hesseltine	414-379-5744
Al Hovey	414-529-1878
Agnes Keszler	414-475-6267
Tamas Kriska	414-475-6267
Neil Simmons	262-889-2039
Michael Smiley	262-825-3981
Sue Timlin	414-460-4886
Dan Yanko	262-255-3482

April/May Key Holders

4/20	Russ Chabot	414-881-3822
4/27	Brian Ganiere	414-961-8745
5/4	Henry Gerner	414-774-9194
5/11	Chris Hesseltine	414-379-5744
5/18	Tim Hoff	262-662-2212
5/25	Scott Jamieson	262-592-3049



MAS Observatory

18850 Observatory Rd
New Berlin, WI

www.milwaukeeastro.org



The Milwaukee Astronomical Society

2013 Public Night Schedule

Join Us For An Evening Under The Stars

The evening will include a tour of the observatory, a presentation about the topic for the night, and viewing thru the telescopes if the weather permits.

All Public Nights are held Rain or Shine at the MAS Observatory in New Berlin.

May 10, 7:30 PM Inner Planets
June 7, 6:00 PM Our Energetic Sun
August 9, 7:30 PM Meteor Showers
September 6, 7:30 PM Deep Sky Objects
September 27, 7:30 PM Constellations Culture
October 11, 7:30 PM The Moon



A donation of \$5/vehicle is appreciated.

18850 Observatory Road
New Berlin, WI 53151

<http://www.milwaukeeastro.org>

