Howard Astronomical League

March 21st, 2019
Introductions

Sponsored by: Famous Astronomers that could really use a haircut.
The Big Dipper – Proper Motion
100,000 BC to 100,000 AD

Courtesy of Dr. Richard Pogge – Astronomy Professor at Ohio State University
Thanks to Pat Pitts for bringing this to our meeting.
The Great Comet of 1819

The Great Comet of 1819, officially designated as C/1819 N1, also known as Comet Tralles, was an easily visible brilliant comet, approaching an apparent magnitude of 1–2, discovered July 1, 1819 by Johann Georg Tralles in Berlin, Germany. It was the first comet analyzed using polarimetry, by François Arago.

Johann Georg Tralles
Oct 15, 1763 – Nov 19, 1822

Great Comet of 1819 from Uranography
Drawn by E. Otis Kendall (1850)
Definition: Polarimetry

Polarimetry is the measurement and interpretation of the polarization of transverse waves, most notably electromagnetic waves, such as radio or light waves. Typically polarimetry is done on electromagnetic waves that have traveled through or have been reflected, refracted or diffracted by some material in order to characterize that object.

\[
[\alpha]_t^\lambda = \frac{\alpha}{cl}
\]

- \([\alpha]\) = observed rotation
- \(t\) = temperature
- \(\lambda\) = wavelength of emitted light
- \(\alpha\) = observed rotation in degrees
- \(c\) = concentration in g/ml
- \(l\) = pathlength (length of tube in decimeters)
Current Astronomy News

Hubble: Colliding Galaxies – NGC 6052
Located in Hercules 230 Million Light Years Away
Discovered in 1784 by William Herschel and was classified as an “Irregular Galaxy”

Text credit: ESA (European Space Agency)
Image credit: ESA/Hubble & NASA, A. Adamo et al.
Stardate: 5943.7

Captain - James T. Kirk – USS Enterprise

Captains Log: We have calculated that Beta Niobe will go nova in approximately three and a half hours. Its only satellite, Sarpeidon, is a Class M planet, which at last report was inhabited by a civilised humanoid species. Now our instruments show that no intelligent life remains on the planet.

Chief Medical Officer – Dr. Leonard H. “Bones” McCoy
Heard to say: How can a planet full of people just disappear?
Astronomy News – Future (Cont’d)

Beta Niobe: Super Nova in 2269
Happy March Birthday’s

U.S. born Astronomers
Astronomy Humor

ASTEROIDS
...are nature’s way of asking:

“How’s that space program coming along?”
# Officers Reports

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Email</th>
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<tbody>
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<td>Webmaster *</td>
<td>Paul Montanaro</td>
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This Evening’s Speaker

Dr. Albert Holm

Former staff member for OAO-A2, the International Ultraviolet Explorer, and the Hubble Space Telescope

Out of this World Astronomy: The Orbiting Astronomical Observatory-A2
Phil Whitebloom
March 16\textsuperscript{th} – Robinson Nature Center
Public Outreach – Galileo Telescope Building
Orion Nebula
4" (105mm) Astro Physics Refractor
Manual Mount
Member
Astrophotos, Sketches, and Paintings
M51
March 16, 2019
Alpha Ridge Park, Howard Co, MD

8-inch F/8 Ritchey-Chretien
LRGB (17,3,2,4) x 4min
104 min total exp time

ZWO ASI1600MM-C
Max Dynamic Range
Wayne Baggett
NGC 2467 - “The Skull and Crossbones Nebula”

<table>
<thead>
<tr>
<th>By:</th>
<th>Ken Everhart</th>
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<tbody>
<tr>
<td>Date:</td>
<td>12 December 2018 (UTC)</td>
</tr>
<tr>
<td>Location:</td>
<td>Kissimmee Prairie, Florida.</td>
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<tr>
<th>Telescope:</th>
<th>Meade LX-850 14”</th>
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<tbody>
<tr>
<td>Camera:</td>
<td>Zwo ASI 1600 mm</td>
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<tr>
<td>Processing:</td>
<td>Pixinsight</td>
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</tbody>
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- **SII**: 8 X 300 Secs.
- **H-Alpha**: 8 X 300 Secs.
- **OIII**: 8 X 300 Secs.
“Orion’s Belt and Sword”

By: Ken Everhart
09 March 2019 (UTC)
Kissimmee Prairie, Florida.

Telescope: Canon EF-S Macro 60mm
Camera: Zwo ASI 1600 mm
Processing: Pixinsight

H-Alpha 5 X 300 Secs
Red: 10 X 30 Secs.
Green: 10 X 30 Secs.
Blue: 10 X 30 Secs.
NGC 5139 - “Omega Centauri”

By: Ken Everhart
9 March 2019 (UTC)
Kissimmee Prairie, Florida.

Telescope: Pro-Optic 90mm
Camera: Zwo ASI 1600 mm
Processing: Pixinsight

Lum: 10 X 60 Secs.
Red: 5 X 60 Secs.
Green: 5 X 60 Secs.
Blue: 5 X 60 Secs.
Crater Tycho.
53.4 mi. wide, 3 mi. deep.
Central peak is 1mi high.
Named for Tycho Brahe, last important astronomer before telescopes.
Photo: Camera handheld to the eyepiece of 8" SCT.
M104 (NGC 4594)
Sombrero Galaxy

Constellation: Virgo
Magnitude: 8.0
Distance: 34 million light years
Actual Size: 70,000 light years across
Apparent Size: 7.1 by 4.4 arcminutes

Telescope: 155mm Refractor
Eyepieces: 22mm Nagler (50x)
6mm Delos (182x)
Field of View: 1.6 degrees (22mm)
Orientation: Diagonal View

Date: 13-March-2019
Time: 01:00 to 02:35 EDT
Location: Deck of House
Drawing by: Richard Orr
**Stargate**

**Asterism**

- **Constellation:** Corvus
- **Telescope:** 155mm Refractor
- **Eyepiece:** 22mm Nagler (50x)
- **Field of View:** 1.6 degrees
- **Orientation:** Diagonal View

**Date:** 13-March-2019

**Time:** 00:30 to 00:55 EDT

**Location:** Deck of House

**Drawing by:** Richard Orr
Herman Heyn

Above: Galileo’s sketch of the moon, 1610. Crater is believed to be either Albathegnius or Copernicus.

Right: 8-Day Moon with Copernicus. Photo shot during twilight 04/26/2015 using a Canon PowerShot handheld to a 40mm Kellner (50X) thru his 8” SCT.
Herman Heyn
Circumpolar
1978
Upcoming Events

• April 6th-7th – NEAF – Suffern, NY
• April 6th – Members Only – Alpha Ridge
• April 13th – Greenfest, HCC 10:00AM-4:00PM
• April 13th – Public Star Party – Alpha Ridge
• April 28th-May 5th – Texas Star Party
Thank You!

Next month’s meeting is on Thursday, April 18th, 2019 at 7 PM
AstroSchool at 6:15
Panel Discussion
Improving your Observing Experience