

## **First Light Lite**

March 1, 2022

Jim Lynch – Editor

### **Message from the CCAS President**

March two years ago marked the beginning of the Covid pandemic in the USA. We sadly cancelled a lecture by (then) American Physical Society President Dr. Jim Gates, and started looking into online alternatives such as Zoom. After only a month's delay, we were able to resume our lectures online (including Jim Gates), but our live lectures, star parties, and interactions with the Cape's schools were put on indefinite hold.

After two years of living Covid, and having a major portion of our activities sidelined, the warmth of spring and the decline of the omicron variant of Covid hold promise for a gradual resumption of our full suite of activities. Let's talk about a hopeful future, then. And please forgive some repetition from past months. Things are progressing, but slowly and incrementally.

### **Lecture series**

We have some great speakers interested in giving in-person talks (as we promised them), and will be continuing our book give-away program for any students attending via Zoom. Live lectures look like a good possibility after April, given information we have obtained from local libraries and other venues. We also have two great speakers via Zoom lined up for March and April. So, see below and stay tuned!

I'll also note that, after April, we are planning to have our live talks also broadcast via Zoom, and also recorded for later viewing. This is a modest technical innovation that should improve the reach of our talks, and was probably overdue.

Also, we have had a very happy collaboration with the Phoenix Astronomical Society (PAS), which has invited us to their talks (also first Thursday of the month), and has been invited to ours. (You will find Zoom links/invitations in this newsletter to this month's talks for both clubs.)

## **Star Parties (updated)**

An edited repeat of the last two months here. “As to the full resumption of Star Parties, the cold weather/Covid combo is currently the controlling factor. We can’t allow people into the WSO to warm up yet, and January, February and March evening weather is very often 10-30 degrees (plus wind chill). We don’t want to freeze our guests (or our staff), so instead we will work on getting our equipment and Observatory in great shape for the Spring. The dates for further 2021 Star Parties which were posted on the CCAS website, [www.capecodastronomy.org](http://www.capecodastronomy.org), were removed and we will update that site with 2022 Star Party dates as soon as they become possible.”

## **School Projects and Activities**

At this point in time, we are still discussing with the local schools (Dennis-Yarmouth HS, Barnstable HS, Sturgis Academy) what is possible and what is not this year and the coming year. The schools have been more than slightly distracted with trying to operate during this latest Covid wave, and so negotiations, while ongoing, have been slow. Our major hope is for next year.

## **Public Outreach**

We have some very exciting plans coming together with the Camp Edwards base folks, the Upper Cape Cod Regional Technical School (and its adult education component), and the Cape Cod National Seashore. While these will be happening in the warmer weather, they are fairly concrete, and so there is future activity in this arena. The first two will be springtime, and the latter likely in September.

## **Day of Astronomy**

We are still planning a Day of Astronomy event at the Werner Schmidt Observatory (WSO) for the public and our club members and friends. However, it also will have to wait for the warmer weather. May 7<sup>th</sup> is a national “Astronomy Day,” and perhaps that will be our choice. We will send out notices (email and other) when the date for this solidifies, as well as post it on our web calendar.

# Speakers

## Last Month's Speaker(s)

February 3<sup>rd</sup>, 2022

**Dr. Jim Lynch, Mr. Charlie Burke, and Dr. Mike Hunter - CCAS**

**“CCAS: Current Status and Future Plans.”**

**Abstract:** As mentioned above, we are in a transitional period where we envision being able to ramp up club activities again. We will address this in three parts: general club activities (club president Jim Lynch), the Werner Schmidt Observatory and observing programs (WSO director Charlie Burke), and the CCAS website (webmaster Mike Hunter). We are hoping for a highly interactive session with our members and friends. Please link in, and join the conversation!

**Precis:** Jim Lynch talked first, and started with our speaker program. A suggestion that we record the talks on Zoom was adopted, and extended to include future hybrid meetings (live talks plus a Zoom link). He also mentioned that we probably would not have any live lectures this spring or summer at DYHS, and that other venues were being looked at for now. He will look at Falmouth venues, and Janice Marks will look at Bourne. It is likely that admission will be restricted for now at any venue, so hybrid meetings will likely be needed.

Jim Lynch next discussed our star parties, and mentioned that they would resume once warmer weather came. The three outreach events were then discussed, and a call for volunteers to help with them put out. He also mentioned that representatives from the National Seashore would attend the March CCAS meeting.

Our relation with the DY Regional School District was discussed, and the suggestion floated that we propose a one-year extension of our existing contract with them, to allow them adequate time to finish dealing with the covid pandemic. This suggestion was adopted by us, and is being considered by DYRSD. If agreed to, it would allow us to interact with DYHS faculty and staff soon to plan some joint programs for next year.

Finally, Jim discussed the club's finances, which are very good, but for the wrong reason, i.e. because we really didn't spend much over the past two years.

Mike Hunter talked next about the website, noting that its structural underpinnings were solid at this time. Simplifying the calendar was one topic that did come up, as some people were not fond of using the Google calendar. He seemed pleased with the two vendors who now work with our site. There was some

discussion that the next phase should be to obtain more content, and suggestions were entertained.

Finally, Charlie Burke talked about the Werner Schmidt Observatory. The main scope is basically in good shape, and works with the SharpCap software to produce the “near-real-time” stacked images that we wish to show star party attendees. The dome is also in good shape, and is not leaking (as was feared after some of the winter storms ripped off some siding.) It was agreed that the dome automation should not be started until after we have a new, long-term agreement with the DYRSD. Hank Ricci mentioned that the small “LightSwitch” 8” scope also produces quickly stacked images. Near-real-time stacking with other small scopes is being pursued as well. It was noted that there is an 8” Dobsonian scope available for remote star parties, such as the three events we have planned to date.

### **This Month’s Speaker**

**March 3<sup>rd</sup>, 2022**

**Mr. Stephen LaFlamme, CCAS**

**Abstract:** New to our club, but not new to astronomy, Stephen LaFlamme will be presenting highlights from his 44 years of dancing with the stars. From that department store telescope on Christmas morning, to the high school career choice, to the backyard observatory, to the amateur ‘discovery’, to advanced astrophotography, to the projects of today. Join in for a casual presentation with a look at some quirky and unusual astronomy highlights.

### **Biography:**

- longtime resident of Bridgewater, Mass.
- retired pharmacist, 32 years at Walgreens (B.S. Pharmacy @ U.R.I. ’87)
- discovered amateur astronomy in 1978, at age 14
- not into science fiction, AT ALL
- countless Astro-presentations at schools, senior centers, libraries, civic groups, (and breweries!) over the years
- active on Facebook and Instagram at “Universefromthebackyard”
- my ‘other’ hobby craze is baseball history and memorabilia



Fig. 1. Stephen's home observatory! Check it out, along with some beautiful Astro-photos, on Stephen's Facebook and Instagram sites (noted above).

**ZOOM Link for this month's CCAS talk**

James Lynch is inviting you to a scheduled Zoom meeting.

Topic: CCAS Zoom Meeting March 3rd 2022



Time: Mar 3, 2022 07:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us06web.zoom.us/j/81515442993?pwd=V2hHaWxUVzI0ejRVQit0ZU5sU1BpQT09>

Meeting ID: 815 1544 2993

Passcode: 697124

One tap mobile

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+1 346 248 7799 US (Houston)

+1 720 707 2699 US (Denver)

Meeting ID: 815 1544 2993

Passcode: 697124

Find your local number: <https://us06web.zoom.us/u/kFMh0JoB>

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### **Phoenix Astronomical Society Speaker for March 3rd**

We again have an invitation to listen in to the PAS speaker for March 3<sup>rd</sup> (same night as ours, but 7:00 PM in Arizona is 9:00 PM eastern!) Here is the link, an abstract, and a bio!

**Abstract:** Phoenix, AZ – The Phoenix Astronomical Society PASAZ.ORG is proud to announce that Dr. Renu Malhotra will be our guest lecturer March 3, 2022, during our 7:00 p.m. (Arizona time) ZOOM meeting. Please join us via the following Zoom link:

<https://us02web.zoom.us/j/88905330174?pwd=N3V2THhpdzdrM1pJQTVGUjc5eDhZQT09>

Dr. Malhotra's lecture is titled "Migratory Planets and Chaos in the Young Solar System." Our understanding of the Solar system has undergone a revolution in

recent decades, owing to new observational discoveries and new theoretical insights into its rich dynamical structure. The emerging picture is one of dramatic orbital migration of the giant planets in the early history of the Solar system, driven by interaction with the primordial Kuiper belt, which produced the Solar system architecture that we live in today. The evidence is all over the Solar system, as close as the Moon and as far away as Pluto and the Kuiper belt. While this evidence is compelling, there is also tension with the observed properties of the inner solar system: the migration of the giant planets should have caused severe, potentially destabilizing, perturbations on the terrestrial planets' orbits. She will describe these developments and some ideas under debate about how our solar system's architecture came to be.

**Biography:** Dr. Renu Malhotra is Louise Foucar Marshall Science Research Professor and Regents Professor of Planetary Sciences at The University of Arizona in Tucson, where she directed the Theoretical Astrophysics Program during 2011-2016. She was born in New Delhi and grew up in Hyderabad, India. She earned her M.S. in Physics from the Indian Institute of Technology in Delhi in 1983, and her Ph.D. in Physics from Cornell University in 1988.

She did post-doctoral research at Cornell and at Caltech, and worked as a staff scientist at the Lunar and Planetary Institute in Houston. Her work in planetary dynamics has spanned a wide variety of topics, including extra-solar planets and debris disks around nearby stars, the formation and evolution of the Kuiper belt and the asteroid belt, the orbital resonances amongst the moons of the giant planets, and the meteoritic bombardment history of the planets. She has revolutionized our understanding of the history of the solar system by using the orbital resonance between Pluto and Neptune to infer large-scale orbital migration of the giant planets and to predict the existence of the "Plutinos" and other small planets in resonance with Neptune. She is an elected member of the National Academy of Sciences and of the American Academy of Arts and Sciences, and has been the recipient of honors and awards from the American Astronomical Society, the International Astronomical Union, the Harvard-Smithsonian Astrophysical Observatory, Cornell University, The University of Arizona, and the IIT-Delhi.

### **Next Month's Speaker (April 7<sup>th</sup>)**

Our April speaker will be Dr. Hugh Crowl from Bennington College. His topic will be the formation of early galaxies, a hot topic that has heated up even further now that the James Webb Space telescope is now in orbit and will soon become operational. BTW, if anyone is interested in this topic and wishes to read a

good (brief, but somewhat technical) introduction to it, I would recommend “How did the First Stars and Galaxies Form” by Abraham (Avi) Loeb.

### **Upcoming 2022 Possibilities**

Dr. Alyssa Goodman of Harvard University, whose work on the "Radcliffe Wave" discovery was prominent in the news, has agreed to talk to CCAS this coming year. We had promised Dr. Goodman some direct contact with the local students, but until the latest Covid variants are under control, that is not yet possible. Her exact topic/title is TBD.

Dr. Francesca Fornasini of Stonehill College has also agreed to talk to us. She specializes in early star and galaxy formation, and her exact topic will be announced in the near future. Her husband, Dr. Garrett Keating, is also interested in visiting and talking to us.