

JOIN US FOR A
VIRTUAL
**STAR
PARTY**

FRIDAY, OCTOBER 23 • 6 - 8:30PM
AT THE CANYON COUNTRY CAMPUS

Guest speaker

Dr. Padi Boyd

Chief, Exoplanets and Stellar Astrophysics Laboratory,
NASA's Goddard Space Flight Center

**Beyond the Night Sky –
The Once-Invisible Universe**

- Watch science-focused, student-led demonstrations
- Explore the skies with local amateur astronomer telescope viewing

www.canyons.edu/ccc

For more information (661) 362-3800



ABOUT THE SANTA CLARITA COMMUNITY COLLEGE DISTRICT

The Santa Clarita Community College District serves a 367-square-mile service area in northern Los Angeles County. College of the Canyons, the single college within the district, serves more than 23,000 students in a traditional year at campuses in Valencia and Canyon Country, as well as online. Located on a modern 153-acre campus in Valencia and 70-acre site in Canyon Country, the college offers classes during traditional fall and spring semesters, as well as summer sessions and five-week winter intersessions. Currently, COC offers more than 180 degrees and certificates, along with 40 bachelor's, master's and doctoral degrees available in the University Center from multiple partner institutions.

The Canyon Country Campus, which opened in 2007, has become known as a comprehensive campus that offers high-quality instructional programs, supportive student services and meaningful community partnerships. Since 2007, the campus has offered nearly 8,000 classes and served more than 65,000 students. Although current facilities consist primarily of modular buildings, the campus is poised to transform with new permanent structures. In January 2018, the campus broke ground on a new Science Center—the first of multiple building complexes planned in the future to dramatically expand campus opportunities and pathways for students and the community. Construction continues on the Science Center, which is expected to be completed in 2021, and will provide 55,000 square feet of new space for high-demand instructional programs.

College of the Canyons has maintained its status over the years as one of the largest employers in the Santa Clarita Valley and is a vital, enduring, cultural, educational, and economic force in the region. The Canyon Country Campus contributes to this educational work and community impact.

COLLEGE OF THE CANYONS CANYON COUNTRY CAMPUS

17200 Sierra Highway, Santa Clarita, CA 91351

(661) 362-3800 | www.canyons.edu/cc

EVENT AGENDA



6 – 6:10pm

Opening Remarks

Dr. Ryan Theule, Campus Vice President, and
Mr. Anthony Michaelides, Campus Dean

6:10 – 6:15pm

Guest Speaker Introduction

Teresa Ciardi, Professor, Astronomy & Physical Science

6:15 – 6:55pm

“Beyond the Night Sky — the Once-Invisible Universe!”

Guest Speaker: Dr. Padi Boyd, Chief, Exoplanets and Stellar
Astrophysics Laboratory, NASA’s Goddard Space Flight Center

6:55 – 7:10pm

Q & A

7:10 – 7:15pm

Introduce Telescopes and Demonstrations

7:15 – 7:35pm

Explore the Skies with The Local Group Astronomy Club of SCV

Dave Flynn, Member, The Local Group Astronomy Club of SCV

7:35 – 7:45pm

Q & A

7:45 – 8:05pm

Demonstrations by student groups

- Astronomy Physics Club
- MESA and the Society of Hispanic Professionals and Engineers (SHPE)
- NASA HASP/RockSat-X

8:05 – 8:15pm

Q & A

8:15 – 8:30pm

Closing Remarks

Thank you for joining us!!

SPECIAL GUEST SPEAKER



Dr. Padi Boyd **Chief, Exoplanets and Stellar** **Astrophysics Laboratory, NASA's** **Goddard Space Flight Center**

Padi Boyd is the Chief of the Exoplanets and Stellar Astrophysics Laboratory in the Astrophysics Science Division, and the Project Scientist for the Transiting Exoplanet Survey Satellite (TESS) Mission (a NASA Explorer Mission launched in 2018). She has been at Goddard since 1993, when she was a USRA visiting scientist with the High Speed Photometer and Polarimeter Team aboard the Hubble Space Telescope, studying the optical and ultraviolet polarization seen in X-ray binaries, pulsars and active galaxies.

In 1995, Boyd joined the Monitoring X-ray Experiment team, an X-ray all-sky monitor that was in development and testing as part of the Russian-led Spectrum X-Gamma mission. In 1997, she joined the Rossi X-ray Timing Experiment Guest Observer Facility performing science support for that mission. From 2003 to 2008, she managed that facility, as well as the Swift Science Center.

Padi spent a two-year detail at NASA Headquarters in Washington as the program scientist for the Kepler mission. While at NASA Headquarters, she was also the NASA point of contact for the MOST U.S. Guest Observer program and also served as a discipline scientist for X-ray and gamma-ray astronomy. She was also the Program Officer for the Origins of Solar Systems Exoplanets program.

Since returning to Goddard in 2010, she has held a number of positions including Deputy Project Scientist for Operations of the Hubble Space Telescope, Associate Chief of the Astroparticle Physics Laboratory, Acting Deputy Director of the Astrophysics Division, and Associate Director of the Astrophysics Division.

Her research interests focus on applying traditional and novel time series and spectral analysis techniques to uncover the drivers of stellar variability, and accretion in compact binaries and active galaxies, using data from a variety of space telescopes.

GALILEO'S TELESCOPE



One of Galileo's 1st Telescopes (Image from NASA)

All of what we know about objects in space is the result of observation and analysis of light. There are many types of light, and most cannot be seen by the human eye. Humans detect visible light which is comprised of the colors of the rainbow. However, astronomers have devices that can detect all types of light from space including gamma-rays, x-rays, ultraviolet, visible, infrared, microwaves, and radio waves. Telescopes are used to gather and focus the light from space. Galileo did not invent the telescope, but rather improved upon the initial designs and was the first person to point the telescope toward space. It was Galileo that took us from a geocentric model to a heliocentric model of the solar system in the early 1600's and determined that objects could orbit bodies other than the Sun or Earth when he discovered the four large moons that orbit Jupiter.

GALILEO'S TELESCOPE



Image of James Webb Space Telescope from Scientific American

Over 400 years later, we have moved from using a combination of small lenses to view objects from Earth in visible light and having those objects magnified 8-20 times, to using comparably huge telescopes in space that not only magnify the light but analyze every wavelength of every type of light. We have gone from discovering the Galilean moons to discovering the most distant object in our universe, galaxy MACSO647-JD which is about 13.3 billion light years away.

CANYON COUNTRY CAMPUS SCIENCE CENTER



Continued construction of the new 55,000-square-foot Science Center points to the promising future of the Canyon Country Campus. When it opens for classes in 2021, the four-story structure will contain more lab space than is currently available on the Valencia Campus. It is situated at what will become the center of campus on the newly renamed Dr. Dianne G. Van Hook Drive. The street was renamed in 2018 to honor the Chancellor's 30 years of service to College of the Canyons. Also taking shape is a new terraced amphitheater that will provide student gathering space. The outdoor plaza will be book-ended by the Science Center and the planned Student Services/Learning Resources building, that began construction in 2020 and will be a mirror image of the Science Building.



Our sincere **THANKS** to all who
made this evening possible!

Dr. Padi Boyd

Chief, Exoplanets and Stellar Astrophysics Laboratory,
NASA's Goddard Space Flight Center

**The Local Group Astronomy Club of
Santa Clarita Valley**

Teresa Ciardi

Professor, Astronomy & Physical Science

The COC Astronomy Physics Club

MESA and SHPE Students

NASA HASP and RockSat-X Students

COC IT Department

Chancellor Dr. Dianne G. Van Hook

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