Department of Physics, Astronomy & Mathematics 1 st D

st December 2023



@Bayfordburyobservatory

@BayfordburyObs

Bayfordbury Observatory

Bayfordbury Open Evening

(Due to limited parking, please limit your visit to 2 hours)

Research Talks

Talks are located in the Café space on the right from the main entrance. There is no need to book a place; just turn up and take a seat 5 minutes before the talk is due to start. Each talk will last approximately 45 minutes.

18:30 "Exploring Alien Atmospheres with JWST" Dr. Ben Burningham

JWST is revealing spectacular new details of the atmospheres of worlds beyond our solar system. Ben Burningham will delve into the details of the some of the most exciting results including alien weather, exotic clouds and new discoveries that are stretching our understanding of atmospheric physics.

19:30 "The Discovery of Ultra luminous X-ray

Pulsars"

Dr Dom Walton

X-ray binaries are systems where a black hole or neutron star draws material from a normal stellar companion, generating intense X-ray radiation. Recent discoveries reveal that some highly luminous X-ray binaries in nearby galaxies are fueled by neutron stars, contrary to expectations based on their lower mass compared to black holes. These 'ultraluminous' X-ray pulsars defy conventional theories about the maximum brightness of such objects, presenting a challenge for understanding. I'll explore the discovery, current knowledge, and remaining mysteries surrounding these intriguing systems.

20:30 "The Ins and Outs of the Milky Way" Professor Sean Ryan

The Sun is one of a hundred billion stars situated in a galaxy we call the Milky Way. It is just 100 years since the boundaries of the Milky Way were recognised, and the spiral nebulae were shown to lie well beyond our system of stars. But how and when did the Milky Way come to exist? This talk will trace the continuing development of our understanding of the formation and evolution of the Milky Way, and how the Milky Way as we observe it variously reveals and in equal measure obscures evidence of its past.

Planetarium Shows

Shows will be taking place throughout the evening in our two domes. You can book your spot at reception. One is located in our lab to the right of reception and the indoor planetarium is upstairs at the end of the corridor. Please arrive a few minutes early for your show and queue outside. If you miss your show, we cannot guarantee you a place in another.

Please do not take food or drink into the indoor planetarium or telescope domes.

Telescopes

The telescopes are a short walk from the main building on a paved & level path. Exit the doors at main reception, turn left and follow the lit path. Please stay on the path.

Once you are at the telescopes, you may enter any dome that has its door open to view and, weather permitting, look through our telescopes.



Activities & demonstrations

Follow the upstairs corridor to find a selection of activities and demonstrations lead by astrophysics students and members of the Hertford Astronomy Group. Including:

Make-a-Comet: See how we can build comets here on Earth

JWST zone: Learn all about the wonders of the most ambitious space telescope humanity has ever built and do some fun activities!

Asteroid Rocks: Have a chance to hold in your hand's rocks from outer space!

Make a Straw Ariane 5 Rocket: Do you have what it takes to be an aerospace engineer and design, build and launch a rocket with the JWST inside?

...and much more!

Toilets

The accessible and men's toilets are on the ground floor and the women's are at the top of the stairs. There is an accessible toilet at the telescopes.