

## Bayfordbury Open Evening: The James Webb Space Telescope Special

(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 40 minutes.

#### 18:30 "The Astrolab"

**Elijah Beevor**

When we think of powerful computers today, we think of big machines with flashing lights and powerful processors. However, computers have existed for way longer than we think. Analogue computers have existed since at least Ancient Greek times and possibly even earlier. I will be talking about the Astrolabe, an astronomical analogue computing device with all the capabilities of a modern smartphone.

#### 19:30 "The James Webb Space Telescope: a new eye on the distant Universe"

**Emma Curtis Lake**

Hear about JWST as a time machine. I'll first talk about the launch on Christmas Day, what's been going on and where we are at with readying this telescope for science. Then I'll share we have learned about galaxies the early Universe thanks to the Hubble and Spitzer space telescopes, why we need JWST to give us a better view of early galaxies, and how it will probe even further back in time.

#### 20:30 "How to Build a Galaxy"

**Chris Lovell**

The James Webb Space Telescope will revolutionise our understanding of the early Universe, when the first stars and galaxies formed. Models of galaxy evolution, run on some of the biggest supercomputers in the world, play a key part in understanding what Webb will see. In this talk I'll describe how these models are built, and how they aid our interpretation of real observations.

### Planetarium Shows

Shows will be taking place throughout the evening in our two domes. You can book your spot at reception. The outdoor inflatable is in the car park outside (it's hard to miss!) 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

*Data Detective:* The JWST has sent back its first infrared image of the atmospheres of exoplanets, can you work out if any of these might support life?

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

*Make an Astrolabe:* Travel back in time to the Islamic Golden Age to make your own ancient astronomical instrument

...and much more!

### Toilets

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