

## PAA October 2021 Meeting

The monthly meeting of the **Peterborough Astronomical Association's (PAA)** will take place **online** October 1<sup>st</sup>, via Zoom **To participate** just make sure that in advance, you opened a (free) Zoom account on whatever iphone or tablet device you wish to participate with and then **contact** [https://www.peterboroughastronomy.com/zoom\\_register.php](https://www.peterboroughastronomy.com/zoom_register.php) for the **password and link** to our evenings presentations.

### **Novice Classes**

Our “**Novice Astronomy Classes**” are focused on the practical aspects of learning about astronomy. This month's session is entitled “Astronomy Software, Apps & Observing Techniques”. In it we will talk about and demonstrate astronomy software that will help you learn the night sky and plan your night of observing, as well as locate and navigate to specific objects. In addition, helpful observing techniques which will enable you to get the most from a night under the stars will be discussed.

If you are even remotely interested, be on-line by **6:00 p.m.** to see what you can and can't see in the world around you. The classes run about 45 minutes each session, before our regular meeting.

### **Main Presentation**

**At 7:00 p.m.** after a brief meeting, the main presentation for this month “**Big Questions in Little Galaxies**”, by **Dr. Chelsea Spengler** (see Biography Below), will take place via 'Zoom' from **Chile**.

Virtually every galaxy above a certain size hosts a supermassive black hole (SMBH) at its core. SMBHs cannot be observed directly, as their strong gravity prevents even light from escaping. However, indirect measurements show that their masses are strongly linked to the properties of their host galaxies. This suggests that SMBHs are a fundamental component in the formation and growth of galaxies, and leaves us with some big questions about their origins: Which comes first, the black hole or the galaxy? Why do these two objects remain closely related as the galaxy grows?

In this talk, Dr. Spengler will explain how she uses the Hubble Space Telescope and some of the world's largest ground-based telescopes to uncover the properties of Nuclear Star Clusters, and what these little objects can tell us to answer these big questions.

**Biography:**

Dr. Chelsea Spengler is an astronomer leading research into the smallest — but most interesting — galaxies in our nearby Universe. She holds a BSc. from Case Western Reserve and a PhD (astronomy) from the University of Victoria, BC. Currently, she lives in Santiago, Chile where she is a postdoctoral fellow at the Institute of Astrophysics in the Pontifical Catholic University of Chile. When she's not working, you can find her on the side of a mountain, behind a camera. (photo attached)

We guarantee you will see and learn things you never knew before. A feast for the eyes and a thirsty brain. The price is right...it costs you nothing but your time.

Seán Dunne on behalf of Rick Stankiewicz