

## **Seminarium Astrofizyczne**

wtorek 12.05.2020 godz. **12:00**

<https://zoom.us/j/439968736>

Meeting ID: 439 968 736

Password: 072094

**Anastasia Efthymiadou**

(University of Bath, UK)

### **Star formation and black hole growth: driven by mergers, or not?**

Most massive galaxies host a supermassive black hole (SMBH) at their centre. When the central SMBH goes through a phase of rapid accretion, it is known as an Active Galactic Nucleus (Nuclei for plural - AGN). Cold, dense gas is the main fuel that is consumed in feeding the SMBH leading to its growth. Mergers between gas-rich galaxies constitute a potential mechanism for transferring cold gas to the central sub-kpc regions of galaxies. This gas is then consumed in an intense starburst and is accreted into the central SMBH, potentially driving the observed correlation between the mass of the SMBH and that of the galactic bulge. In this scenario, the recently ignited AGN is initially obscured and reddened by the gas and dust participating in the starburst. Once star formation slows down and energetic AGN outflows clear the surrounding remaining gas, a bright blue AGN is observed. We test the merger scenario in driving AGN activity in red AGN that show signs of outflows and the connection between star formation and black hole growth in luminous blue AGN.

Serdecznie zapraszam,  
Agnieszka Majczyna