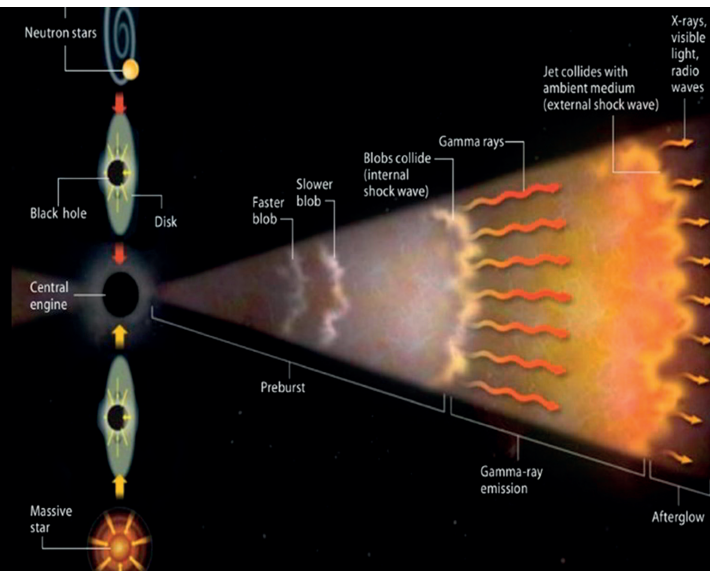


# PHYSICS COLLOQUIUM.



## The Search for Efficient Particle Accelerators in the Universe

Dr. Andrew Taylor | DESY

19 Februar 2020 | 14:00  
DESY | Zeuthen | Platanenallee 6 | SR 3

Already on simple energetic grounds, very few candidate sources of ultra high energy extragalactic cosmic rays can be motivated. Non-thermal emission from these candidate sources, provides further discrimination. The application of these constraints has so far only been possible for specific classes of distant beamed active galactic nuclei jets. Very recent observational results shed new light on the acceleration efficiency in relativistic outflows produced both during black hole formation (gamma-ray bursts) and accretion (active galactic nuclei jets). The challenges for particle acceleration in the environment of these sources are discussed.