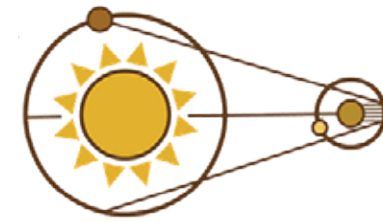


Aarhus University presents

The Ole Rømer Colloquium Series



Wednesday, April 19th @ 14:15
Physics Auditorium

Charlotte Mason

Associate Professor
The Cosmic Dawn Center
Niels Bohr Institute

Chasing Cosmic Dawn and Reionization

The newly launched James Webb Space Telescope (JWST) has expanded our cosmic horizon to the first few hundred million years after the Big Bang, enabling us to observe the build up of the first galaxies. These first galaxies fundamentally altered their surroundings by 're'-ionizing intergalactic hydrogen. I will describe how this reionization process is still poorly understood, but how identifying which population of galaxies dominated the process is key to constraining poorly understood astrophysics of galaxy formation (e.g. massive star formation and feedback processes). Excitingly, an excess of luminous galaxy candidates just 500 million years after the Big Bang has been discovered in early JWST data, which exceeds theoretical predictions. I will discuss how the new JWST observations test theoretical models and possible solutions. I will discuss efforts to constrain the process of reionization and the implications of recent measurements which favour a late and relatively rapid reionization in the context of JWST observations.

Students & staff are all invited!

14:00-14:15: Informal discussions, cake & coffee

14:15-15:15: Seminar and Q&A

15:15-15:45: Special session between students & speaker