## **Location: School of Physical Sciences Room N115**

## When: 13:00 Thursday 13th October

## Speaker: Marcus Brüggen University of Hamburg

Light lunch will be provided. All welcome to attend

**Title:** The non-thermal Universe or the biggest accelerators in the Cosmos

**Abstract**: Non-thermal components of our Universe, such as cosmic rays and magnetic fields, are not very well understood. The origin of cosmic magnetism and the acceleration of cosmic rays are enigmatic pieces of our understanding of the cosmos.

We present recent observational work using a combination of eROSITA, MeerKAT and LOFAR observations to study non-thermal aspects of the Universe's large-scale structure.

Among other things, we study the effects of radio galaxies on their surroundings, present a new class of radio sources and measure magnetic fields on in galaxy filaments. Finally, we present theoretical efforts to explain and simulate recent observations.

**Group**: <u>https://www.physik.uni-hamburg.de/en/hs/group-</u> brueggen.html

**Bio**: <u>https://www.physik.uni-hamburg.de/en/hs/group-</u> brueggen/members/brueggen-marcus.html