**Theoretical Physics Seminar**

**Department of Fundamental Research**

**National Centre for Nuclear Research**

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**Wednesday, 03/06/2020, 12:15**

**Dr Jan Ostrowski**

**BP2, NCBJ, Warsaw**

**On the most massive objects in the Universe**

**Abstract:**

Galaxy clusters and super-clusters can be used to test cosmological models, in particular big enough objects at low redshifts would be a strong indication of the failure

of Concordance Model. It is for this reason among others why precise predictions on how many gravitationally bound objects are we expecting to observe, are of great importance  In my presentation I will sketch a theoretical pipe-line leading from the early Universe initial conditions, via the general relativistic model of evolution to the expected number of compact objects as a function of their mass and redshift. Several of the so-obtained results will be put in the context of our current observational knowledge.

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