## Progress on Old and New Themes in cosmology (PONT) 2017



Contribution ID: 121

Type: not specified

## Numerical tests on renormalised non-linear galaxy bias

Wednesday 26 April 2017 18:15 (15 minutes)

To extract cosmological information from large-scale galaxy clustering, we need accurate modeling of the relationship between dark matter and galaxies (galaxy bias). Recently, field-theory techniques have been used to provide a new description of galaxy biasing in terms of renormalised operators and counter terms, i.e. to build quantities that are not UV sensitive. We test these definitions of the leading-order non-linear bias coefficients (quadratic and tidal bias) against a set of numerical simulations. As a byproduct of our analysis we also discuss the accuracy of the kernels of standard perturbation theory.

**Authors:** WERNER, Kim (Argelander Institut, University of Bonn); Prof. PORCIANI, Cristiano (Argelander-Institut für Astronomie, University of Bonn)

**Presenter:** WERNER, Kim (Argelander Institut, University of Bonn)

Session Classification: Afternoon session