



# UNIVERSITÀ DI PARMA

Dipartimento di Scienze Matematiche, Fisiche ed Informatiche - DSMFI

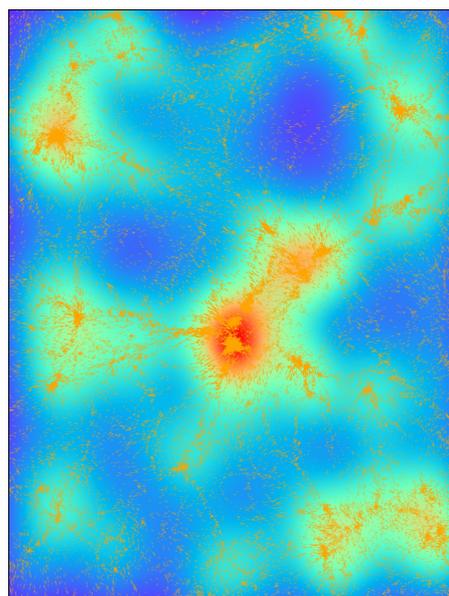
SEMINARIO DI DIPARTIMENTO

## Luigi Guzzo

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### Measuring the Universe with galaxy surveys

**Abstract:** I will review progress in the study of the large-scale structure of the Universe, drawing from the results of my recently completed “Darklight” project supported by the European Research Council (ERC). These include the development and analysis of the VIPERS galaxy survey with the ESO Very Large Telescope (VLT). VIPERS mapped an unprecedented volume of the Universe at  $z=0.5-1.2$ , measuring redshifts for nearly 100,000 galaxies. Measurements of galaxy clustering and the growth rate of structure were used to test deviations from General Relativity (GR) on large scales, one way to explain the observed acceleration of cosmic expansion. After discussing the VIPERS findings, I will show some highlights from a recent work based on forward modelling galaxy clustering using numerical simulations, which provides strong support to GR. Finally, I will mention expectations in this area from the future ESA Euclid mission, to be launched in 2022



Giovedì 9 maggio 2019 – ore 16:30  
Aula Newton – Plesso Fisico