

# Lucie Khat – GECO team

1st year PhD student

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# Test of Gravity with Redshift-Space Distorsions and Galaxy-Galaxy Lensing Measurements from DESI & Euclid

Combining weak lensing and galaxy clustering to constrain parameters with MCMC

**Test of General Relativity**  
precision on deviation to GR

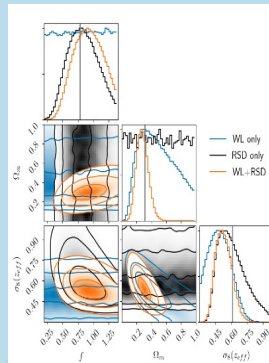
**Test of Modified Gravity**  
Reveal effects & constrain MG parameters at small scales

**DESI**      **C3 SWG**

- simulations lensing/clustering
- tests of simulations (bias)
- pipeline analysis (combine/MCMC)  
→ cosmological fits ( $f$ ,  $\sigma_8$ ,...)
- project with voids at CPPM

**Euclid**

- simulations WG
- participation of the cosmological likelihood pipeline (IST: Likelihood)



From the work to test GR in DESI and Euclid:

- predict MG lensing/clustering signal and test on simulations modified gravity scenarios by adding their parameters

- extend signal prediction to small scales using halo model + lensing magnification effect (with the help of CPT for Effective Field Theory implementation)

(2011.05771)



(Joudaki '17; Jullo '19)

