

# Simulating the polarised sky for weak lensing studies

- The problem?
  - We want to measure the distortion of distant galaxy images by intervening matter. This helps us probe large scale structure and dark energy.
  - But our major systematic error arises from unknown galaxy angles (GA).
- The solution?
  - We can use the polarisation position angle (PPA) as a proxy for galaxy angle.
  - Key points:
    - PPA is correlated with GA.
    - Polarisation direction is unaffected by gravitational lensing.