

# Normalizing Flow Lensing of Gravitational Waves

**NFL-GW**

**Spoke 2 Open Calls meeting 4th October 2024**

**Marco Raveri, University of Genova**

# Project objectives and team

## Work packages:

**WP1:** ML for the identification of strong lensing events

1.1/1.2/1.3 development and optimization of algorithms for detection

1.4/1.5 deployment, run on O3 (~100 events) and O4 (~1k events)

**WP2:** synergies between LSS and GW surveys

2.1/2.2/2.3 simulations and GWxLSS catalog generation + optimization

2.4 GWxLSS synergies for events detection

**People:** Marco Raveri (45%), Andrea Amoretti (30%), Enzo Branchini (30%), Silvano Tosi (30%)

# Outcomes

Code development and public release

Method + application papers (2/3 papers)

First detection?

# Resources

Development happens locally

Large facility needed for O3/O4 runs: 1M events pairs to test...

Limited memory and storage space requirements

GPU access for selected pairs (where we need precision)