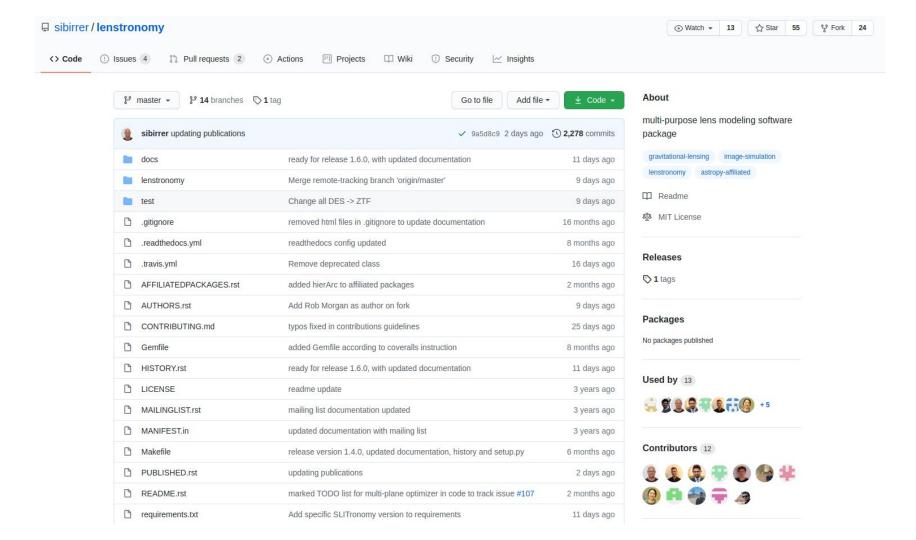
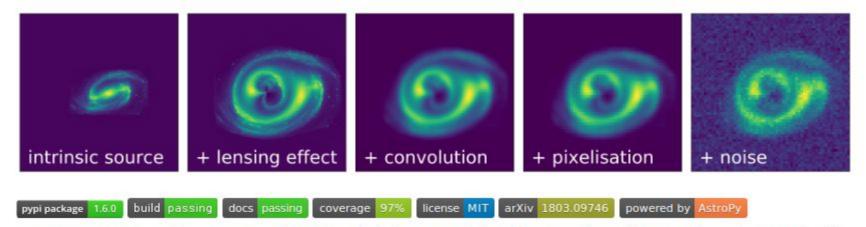
## Lo que faltó...





## lenstronomy - gravitational lensing software package



lenstronomy is a multi-purpose package to model strong gravitational lenses. The software package is presented in Birrer & Amara 2018 and is based on Birrer et al 2015. lenstronomy finds application in e.g. Birrer et al 2016, Birrer et al 2019, Shajib et al 2020 and Birrer et al 2020 for time-delay cosmography and measuring the expansion rate of the universe and Birrer et al 2017 and Gilman et al. 2020 for quantifying lensing substructure to infer dark matter properties.

The development is coordinated on GitHub and contributions are welcome. The documentation of lenstronomy is available at readthedocs.org and the package is distributed over PyPI. lenstronomy is an affiliated package of astropy.

## Vamos a instalar Lenstronomy en nuestro LENS conda environment

1. Activamos el environment:

```
source activate LENS
```

2. Instalamos lenstronomy usando:

```
pip install lenstronomy
```

3. Instalamos fastell4.py que es requerido para correr modelos con masas elípticas.

```
sudo apt-get install gfortran

git clone https://github.com/sibirrer/fastell4py.git <carpeta>

cd <carpeta>

python setup.py install
```

## Links importantes:

- ★ Toda la información relacionada a los paquetes de Lenstronomy los pueden encontrar en:
  - https://lenstronomy.readthedocs.io/en/latest/
- ★ Los Jupyter notebooks con ejemplos de cómo utilizar ciertos paquetes está en:
  - https://github.com/sibirrer/lenstronomy\_extensions/tree/master/lenstronomy\_extensions/sibirrer/lenstronomy\_extens

- ★ La guía de inicio es parte de estos notebooks:
  - https://github.com/sibirrer/lenstronomy\_extensions/blob/master/lenstronom

