contacts

Max Planck Institute
for Astrophysics
Karl Schwarzschild Str. 1
85748 Garching, Germany

lblot@mpa-garching.mpg.de

linda.blot85

lindablot

0000-0002-9622-7167

programming

python, C++,
fortran, bash, SQL,
basics of HTML

software

RAMSES, Gadget,
Mpgrafic, 2LPTic,
Powergrid, PowerI4,
CAMB, Healpix

membership

Euclid consortium
Prime Focus Spectrograph

Linda Blot

curriculum vitæ

Interests

Large scale structure, dark energy, high performance computing and big data applications to cosmology, machine learning

Research experience

10/2018 - now	**Postdoctoral Fellow** Max Planck Institute for Astrophysics, Munich, Germany
11/2015 - 09/2018	**Postdoctoral researcher** Institute of Space Sciences, Barcelona, Spain

Teaching experience

2016- 2018	**Substitute teacher** Galaxies and Extragalactic Astrophysics Master in High Energy Physics, Astrophysics & Cosmology, Autonomous University of Barcelona

Education

2012 - 2015	**PhD** in Astronomy and Astrophysics Observatory of Paris, France
2007 - 2012	**MSc** in Astrophysics and Cosmology University of Bologna, Italy
2004 - 2007	**BSc** in Astronomy University of Bologna, Italy

Awards

Euclid STAR Prize 2018 for the category Team awarded for the work on the *Euclid Flagship galaxy mock catalogue*

Supervising experience

2020/2021	Christoph Neustifter Master thesis, co-supervisor	Ludwig Maximilian University of Munich, Germany
2019/2020	Rodrigo Voivodic PhD thesis, co-supervisor	University of Sao Paolo, Brazil
2016/2017	Cristian Nery Viglione Master thesis, co-supervisor	Autonomous University of Barcelona, Spain

Publications

Peer reviewed publications

1. **Blot L.**, Corasaniti P.S., Rasera Y., Agarwal S., *Cosmological model parameter dependence of the matter power spectrum covariance from the DEUS-PUR Cosmo simulations*, 2020, MNRAS, 500, 2532
2. Pires S. **et al.**, *Euclid: Reconstruction of weak-lensing mass maps for non-Gaussianity studies*, 2020, A&A, 638, A141
3. Knabenhans M., Stadel J., Marelli S., Potter D., Teyssier R., Legrand L., Schneider A., Sudret B., **Blot L.**, Awan S., Burigana C., Carvalho C.S., Kurki-Suonio H., Sirri G., *The EuclidEmulator: A Tool to Compute the Cosmology Dependence of the Non-linear Matter Power Spectrum*, 2019, MNRAS, 484, 4, 5509
4. Arnold C., Fosalba P., Springel V., Puchwein E., **Blot L.**, *The modified gravity lightcone simulation project I: Statistics of matter and halo distributions*, 2019, MNRAS, 483, 790
5. Lippich M., Sánchez A.G., Colavincenzo M., Sefusatti E., Monaco P., **Blot L.**, Crocce M. et al., *Comparing approximate methods for mock catalogues and covariance matrices I: correlation function*, 2019, MNRAS, 482, 1786
6. **Blot L.** et al., *Comparing approximate methods for mock catalogues and covariance matrices II: power spectrum multipoles*, 2019, MNRAS, 485, 2, 2806
7. Colavincenzo M., Sefusatti E., Monaco P., **Blot L.**, Crocce M., Lippich M., Sánchez A.G. et al., *Comparing approximate methods for mock catalogues and covariance matrices III: bispectrum*, 2019, MNRAS, 482, 4883
8. Chan K.C., **Blot L.**, *An assessment of the information content of the power spectrum and bispectrum,* 2017, PRD, 96, 023528
9. **Blot L.**, Corasaniti P.S., Amendola L., Kitching T., *Non-linear matter power spectrum covariance matrix errors and cosmological parameters uncertainties,* 2016, MNRAS, 458, 4462
10. **Blot L.**, Corasaniti P.S., Alimi J.-M., Reverdy V., Rasera Y., *Matter power spectrum covariance matrix from the DEUS PUR ΛCDM simulations: mass resolution and non-gaussian errors,* 2015, MNRAS, 446, 1756

Proceedings

1. Carretero J. **et al.**, *CosmoHub and SciPIC: Massive cosmological data analysis and generation using a Big Data platform*, 2017, proceedings of "The European Physical Society Conference on High Energy Physics", Proceedings of Science, 314, 488

Talks

Invited talks at conferences

July 2020 *Numerical Methods for Clustering Dark Energy Simulations*, PASC20 conference, Minisymposium *Cosmological N-Body Simulations Beyond Newtonian Physics*, Geneva, Switzerland (postponed due to COVID19)

2 Dec 2019 *Cosmology with large galaxy surveys*, ORIGINS Science Week 2019, Garching, Germany

3 July 2019 *Comparing approximate methods for mock catalogs and covariance matrices*, Dynamics of large-scale structure formation, MIAPP, Garching, Germany

7 June 2018 *Cosmological simulations for precision cosmology with large galaxy surveys*, PASCOS 2018, Cleveland, USA

12 Sept 2017 *Covariance estimation from large ensembles of simulations*, Meeting on Fundamental Cosmology, Teruel, Spain

Talks at conferences and workshops

March 2020 *Simulating clustering dark energy scenarios*, Rencontres de Moriond, Italy (cancelled due to COVID19)

2 Sept 2019 *Cosmological simulations for precision cosmology with large galaxy surveys*, COSMO 2019, Aachen, Germany

27 June 2019 *Cosmological simulations for large galaxy surveys*, CosmoGold, IAP, Paris, France

5 July 2018 *Cosmological simulations for large galaxy surveys*, Paving the way of cosmological surveys, Sexten Center for Astrophysics, Italy

24 April 2018 *The ICE-COLA fast N-body method for clustering and weak lensing*, Simulated Skies workshop, ESAC, Madrid, Spain

28 Aug 2017 *Cosmological simulations for precision cosmology with large galaxy surveys*, COSMO 2017, Paris, France

4 July 2017 *The Flagship Mock Galaxy Catalogue*, Getting Ready for Science: Euclid Galaxy Clustering under Science Performance Review, Sexten Center for Astrophysics, Italy

13 July 2016 *The impact of non-linearities on the matter power spectrum covariance. A numerical study*, Theoretical Challenges for Precision Galaxy Clustering, Sexten Center for Astrophysics, Italy

26 Aug 2014 *Matter power spectrum covariance matrix from the DEUS PUR ΛCDM simulations*, COSMO 2014, Chicago, USA

26 June 2014 *Simulating clustering Dark Energy with Ramses*, Ramses Users Meeting 2014, Saclay, France