

# Alessandra Fumagalli

## Curriculum Vitae

Osservatorio Astronomico di Trieste  
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### Education

- October 2017 – **Masters degree in Physics**, UNIVERSITY OF TRIESTE,  
October 2019 Area: Astrophysics and Cosmology,  
Advisors: Stefano Borgani, Alexandro Saro.  
Estimation of theoretical systematics in the cosmological analysis of abundance and clustering of Dark Matter halos.
- October 2014 – **Bachelor in Physics**, UNIVERSITY OF INSUBRIA,  
December 2017 Area: Physics,  
Advisor: Francesco Haardt.  
Weak gravitational lensing: analysis methods and cosmological applications.

### Present Position

- November 2019 – **PhD in Physics**, UNIVERSITY OF TRIESTE,  
present Area: Cosmology,  
Advisors: Alexandro Saro, Stefano Borgani.  
Cosmology with galaxy clusters: study of systematics.

### Experience

#### Research

- November 2019 – **Euclid Member**.  
Present Galaxy Clusters Science Working Group

#### Teaching

- February 2017 – **Laboratory assistant**, UNIVERSITY OF INSUBRIA.  
July 2017 Optics and Electromagnetism.

#### Other

PI of INAF-CINECA class-C proposal  
Code developer for the Euclid cluster likelihood code

### Computer skills

PYTHON, MATLAB, LATEX

### Languages

English Fluent  
Italian Native language

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## Academic Articles

### Published

- 2021 **A. Fumagalli**, A. Saro, S. Borgani, T. Castro, M. Costanzi, P. Monaco, E. Munari, E. Sefusatti et al., *Euclid: Effects of sample covariance on the number counts of galaxy clusters*.  
<http://arxiv.org/abs/2102.08914> (Accepted by A&A)

### In preparation

- 2021 A. Ragagnin, T. Castro, K. Dolag, **A. Fumagalli**, A. Saro, M. Costanzi, S. Bocquet, *Satellite galaxy abundance dependency on cosmology in Magneticum simulations*.
- 2021 **A. Fumagalli**, A. Saro, S. Borgani, T. Castro, M. Costanzi, P. Monaco, E. Munari, E. Sefusatti et al., *Effect of sample covariance on the clustering of galaxy clusters and joint analysis with cluster number counts*.

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## Participation at conferences

### Contributed talks

- 2021 *From Cluster Detection to Cosmological Posteriors*. SPV3 Euclid meeting.
- 2020 *Theoretical systematics for cluster number counts*. Dissecting Cluster Cosmology.

### Other

- 2021 Python in HPC @ICHEC
- 2021 Summer School on Parallel Computing (Auditor) @Cineca
- 2021 Euclid Consortium Meeting 2021