

Marko Shuntov | Curriculum Vitae

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Personal Information

Date of Birth

26-07-1994

Place of Birth

Valandovo, North Macedonia

Macedonian

Nationality

Current Place of Residence

75013 Paris, France

Education

Sorbonne Université, Institut d'Astrophysique de Paris, ED127

PhD, Thesis defense expected in November 2022

Paris, France

2019–

Aix-Marseille University (Laboratoire d'Astrophysique de Marseille – LAM)

Master of Physics, GPA – 16.4/20

Orientation: Astrophysics

Marseille, France

2017–2019

Faculty of Natural Sciences and Mathematics, Institute of Physics

Undergraduate degree in Theoretical Physics, GPA – 8.67/10.00

Thesis title: "Bosonic systems in optical lattices"

Skopje, North Macedonia

2013–2017

Publications

ORCID: 0000-0002-7087-0701

PhotoWeb redshift: boosted photometric redshift accuracy with large-scale spectroscopic surveys

M. Shuntov et al. 2020 [A&A 636, A90](#)

COSMOS2020: A panchromatic view of the Universe to $z \sim 10$ from two complementary catalogs

J. R. Weaver, O. B. Kauffmann, O. Ilbert, H. J. McCracken, A. Moneti, S. Toft, G. Brammer,

M. Shuntov et al. 2021 arXiv:2110.13923 [astro-ph]

Cosmic Dawn Survey. Spitzer observations of the Euclid deep fields and calibration fields

A. Moneti, H. J. McCracken, M. Shuntov et al. 2021 arXiv:2110.13928 [astro-ph]

Papers in preparation

COSMOS2020: The cosmic evolution of the stellar-to-halo mass relation for central and satellite galaxies up to $z \sim 5$

Marko Shuntov, H. J. McCracken, R. Gavazzi, C. Laigle et al. to be submitted

Spitzer selected clusters in Euclid Deep fields at $z > 1.5$

Marko Shuntov et al. in preparation

Internships and Research Experience

Magnification bias in COSMOS

Master Thesis Internship

Institut d'Astrophysique de Paris, France

18.03-30.06.2018

Boosting photo- z accuracy using galaxy spectroscopic surveys and machine learning

Summer Internship

LAM, France

21.05-31.07.2018

Observatoire de Haute Provence

Initiation to observational methods internship

Saint-Michel l'Observatoire, France

23.10-27.10.2017

Teaching and Service

Teaching assistant: Tutorials in a range of subjects for first year University students at Université de Paris 2020/2021

LOC: of the IAP colloquium: Debating the potential of machine learning in astronomical surveys 12-22 Oct 2021

Software

Programming: Python, C, Fortran

Scientific code: TreeCorr, CCL, emcee, nicaea

Image manipulation and analysis: DS9, SExtractor, SourceExtractor++, PSFEx, GALSIM, IRACLEAN, SWarp

Machine Learning algorithms: ANN, CNN, Bayesian NN

Data Analysis

Source and photometry extraction: Infrared photometry extraction in Spitzer/IRAC images using IRACLEAN and SExtractor for deep extragalactic surveys, most notably COSMOS

Languages

Macedonian: Native speaker

English: Fluent, C1 level

French: Fluent, B2 level

References

Henry Joy McCracken & Raphaël Gavazzi: hjmcc@iap.fr

Olivier Ilbert: olivier.ilbert@lam.fr

Clotilde Laigle: laigle@iap.fr