
Curriculum Vitae Michele Bianco

Contacts

Phone: +44 (0) 1273 877 418

E-mail : M.Bianco@sussex.ac.uk

Website: <https://micbia.github.io/>

Address: Astronomy Centre, Department of Physics & Astronomy
Pevensey II Building, University of Sussex
Falmer, Brighton BN1 9QH, UK

Academic Preparation

PhD in Astrophysics at University of Sussex, United Kingdom (2017 - at present)

MSc in Astrophysics at Ludwig-Maximilians-University Munich, Germany (2015 - 2017)

BSc in Physics & Mathematics at University of Fribourg, Switzerland (2011 - 2014)

Experience & Training

Mar. 2019 – PRACE Winter School 2019 Introduction to Machine Learning for Scientists

PRACE training at the Flemish Supercomputer Center (VSC) in Leuven, Belgium

Dec. 2018 – Parallel and GPU Programming in Python

PRACE training held by SURFsara in Amsterdam, the Netherlands

Nov. 2018–GPU Programming with CUDA

PRACE training held by EPCC at Imperial College London, United Kingdom

Sep. 2018–RAMSES User Meeting 2018

organized by the Centre de Recherche Astrophysique in Lyon, France

Oct. 2017–MPI and OpenMP for beginners and Advanced Topics in Parallel Programming

held by the High Performance Computing Center HLRS in Stuttgart, Germany

Research Interestss

I am a PhD student, part of the Reionization group lead by Prof. Ilian T. Iliev, at the Astronomy Centre of the University of Sussex. My main focus is the study of the Epoch of Reionization (EoR), with a focus on the formation of the first stars, galaxies and their radiative feedback on the intergalactic medium and the corresponding observable signatures. I am currently working on very large simulations for the treatment sub-grid density inhomogeneity. With the help of large-scale radiative transfer and N-body simulations, I investigated how sub-grid inhomogeneity of large-scale simulations (often unresolved) affects reionization observables. We successfully reproduced the local halo abundances and clustering, for a given local density, found in simulations that we thus used as sub-grid models in large-volume simulations, where such small-scale structures are not resolved. Detailed methodology and implementation of models will be submitted shortly (M. Bianco et al 2019, in prep.)