Etienne Bonnassieux

Date of birth:	19/10/1991	email:	etienne.bonnassieux@unibo.it
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Active international collaborations

Oct 2018 – Present	**LOFAR-IT** Collaboration working to meet the requirements of the Italian LOFAR community.
Oct 2018 – Present	**DRANOEL Working Group** Collaboration focusing on the study of galaxy clusters & radio relics.
Oct 2017 – Present	**NenuFAR** French low- extension of LOFAR, I head one of its early key science projects.
Oct 2017 – Present	**LOFAR-VLBI** Working group tasked with developing the capabilities of international LOFAR.
Oct 2015 – Present	**LOFAR Surveys KSP** Working group tasked with creating large-scale surveys of the LOFAR radio sky.

Education

Jan 2020	**Obtained CNU Qualification** Obtained CNU Qualification under Section 34, which makes me eligible to hold lecturer positions in French universities.
2015-2018	**PhD in Astrophysics** - *Observatoire de Paris & Rhodes University* Supervisors: Philippe Zarka, Oleg Smirnov, Cyril Tasse "Statistical Analysis of the Radio-Interferometric Measurement Equation, a derived adaptive weighting scheme, and applications to LOFAR-VLBI observation of the Extended Groth Strip" Partnership: LESIA at the Observatoire de Paris (ED127) & RATT-RU, SKA-SA
2013-2015	**M1 & M2R Astronomie, Astrophysique et Ingénierie Spatiale** Equivalent to Msc. I graduated with the Astronomy & Astrophysics program. Partnership : Observatoire de Paris, UPMC, Diderot, Orsay, ENS Ulm
2009-2013	**Bsc (2:2, Hons) in Astrophysics** - *University of Edinburgh* Bachelors of Science, graduated with Honours.
2008-2009	**IB Diploma** - *Bahrain School*

Research Positions

Oct 2018 – Present	Post-doctoral Fellowship on galactic cluster science at low frequencies at the University of Bologna, under the supervision of Annalisa Bonafede as part of the DRANOEL ERC grant.

Teaching & Scientific Outreach

Jun 2019 | **Lectured at the First Italian LOFAR School**
Taught a workshop on using modern direction-dependent calibration & imaging suites DDF and killMS to participants. Helped tutor in the courses of colleagues.

Tutored in the Paris Observatory DU-LU course

Sep 2017 – Jul 2018 | Supervised four students as part of an online course, usually teachers or amateur scientists in the workforce.

Sep 2015 – Jul 2016 | Of my six students, four successfully carried on to other programs in the DU; two dropped during the year for personal reasons.

Lectured for NASSP

Sep 2017 | Interferometry course: two 1-hour lectures on visibilities, UV-plane, PSF, and ZVC theorem. Course was aimed at honours astrophysics students at UCT.

Sep 2016 | As above, but aimed at masters astrophysics students at UCT: content was at a higher level. This also entailed writing and marking a homework question.

Sep 2017 | **Wrote and organised a pyrap tutorial during 3GC4**
Wrote an ipython notebook tutorial on pyrap, a python library. Easily converted into scripts, it has been a very popular tutorial with colleagues over the years.

Sep 2017 | **Rewrote "Visibility Space" chapter of *Fundamentals of Interferometry***
This is an online coursebook written in multiple ipython notebooks, fruit of years of labour from many contributors. Rewrote Julien Girard's work. Link here.

Lectured Physics 101

Jan 2017 – Apr 2017 | Introductory undergraduate course in basic mechanics, aimed non-physicist undergraduates. Of 60-odd students, 15 were also in my tutorial group.

Paris Observatory "Parrainage"

Sep 2016 – Jul 2015 | Paris Observatory's outreach program, organised by Alain Doressoundiram. I helped teachers (primary-school, middle-school) organise scientific demonstrations

Mentoring & Supervision

2018 – Present | Helped a PhD student at the University of Bologna, Nadia Biava, with reducing data using the LOFAR-Surveys pipeline and with the basics of interferometry, as well as some basics of working on Linux. This involved about an hour of work a week over a period of a few months, as well as 1 paper currently submitted to Astronomy & Astrophysics (under review).

2018 – 2020 | Helped a PhD student at INAF, Nicola Locatelli, with reducing data using the LOFAR-Surveys pipeline and with some basics of interferometry. This involved about an hour of work a week over a period of a few months, and the publication of 1 paper in A&A.

2019 | Helped an MSc student at the University of Bologna, Noemi La Bella, with some basics of working with bash on Linux as well as reducing LOFAR data. This did not result in a publication, though one is in preparation.