

Florian Sarron

PhD in Astrophysics

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Education & Employment

- 2019– **Postdoctoral position**, *University of Nottingham*, Nottingham, UK.
with Christopher Conselice, working on galaxy clusters at high redshift
- 2015–2018 **PhD**, *Institut d'Astrophysique de Paris*, Sorbonne Université, Paris, France.
Under supervision of Florence Durret (IAP) and Christophe Adami (LAM): “Galaxy clusters in the cosmic web”
- 2014–2015 **Master 2**, *Université Paris Diderot - Paris VII*, Paris, France, **with honours**.
Fundamental physics - specialised in Astronomy and Astrophysics
- ◇ **3 month research internship** at the Institut d'Astrophysique de Paris, under supervision of Florence Durret – “The cosmic web around galaxy clusters in the CFHTLS survey”
- 2011–2015 **'Magistère'**, *Université Paris Diderot - Paris VII*, Paris, France, **with honours**.
Selective high level program in fundamental physics (\equiv bachelor + master's degree)
2nd year at Columbia University, New York
- ◇ **2014: 2 month research internship** at the Observatoire de Paris, under supervision of Simona Mei and James Bartlett – “Study of the weak lensing magnification signal in the NGVS survey”
 - ◇ **2012: 1 month research internship** at Laboratoire AstroParticules et Cosmologie (APC), under supervision of Fabien Kéfélian and Matteo Barsuglia – “Interferometry with Laguerre Gauss modes for gravitational wave detection using Advanced-Virgo”
- 2009–2011 **'Classes préparatoires'**, *Lycée Victor Hugo*, Besançon, France, **with high honours**.
Selective undergraduate program in sciences (specialised in mathematics and physics)
preparing for the competitive entrance exam to French 'Grandes Écoles'

Teaching experience

- 2015-2017 **Lecturer in Physics**, *Sorbonne Université - 192 hours*.
“Energy and Entropy”: oral examination and practicals for 1st year Physics students
“Mechanics”: exercise courses, oral examination and practicals for 2nd year Physics students

Conferences, workshops & seminars

- 2019 **Talk**, *Euclid UK annual meeting*, London, UK.
- 2019 **Seminar**, *GAHEC seminar at IRAP*, Toulouse, France.
- 2019 **Poster presentation**, *Workshop : "The Cosmic Web : from galaxies to cosmology"*, Edinburgh, UK.
- 2017 **Talk**, *Café-Club GECCO-LAM*, Marseille, France.
- 2017 **Invited Talk**, *workshop "Galaxy groups and clusters II: Laboratories to study galaxy evolution"*, La Serena, Chile.
- 2017 **Poster presentation**, *conference "Galaxy clusters across cosmic time"*, Aix-en-Provence, France.
- 2017 **Poster presentation**, *conference "Galaxy evolution across cosmic time"*, Paris, France.
invested in the LOC
- 2016 **Workshop**, *attended "The Physics of Groups and Galaxy Properties therein"*, Paris, France.
- 2016 **Workshop**, *attended "High Redshift (proto)clusters: anecdotal or important phases?"*, Paris, France.
- 2016 **Poster presentation**, *conference "Hot spots in the XMM sky: Cosmology from X-ray to radio"*, Mykonos, Greece.

Languages

- French Native
- English Fluent, TOEFL : 106/120 (2011).

Computer skills

- Languages
 - Advanced: Python, FORTRAN 95
 - Intermediate: openMP, HTCondor
 - Basic: C, IDL
- Software : ds9, TOPcat, Gnuplot, Paraview, ESOREflex, Disperse

Publication list

- 2020 Adami, C.; **Sarron, F.**; Martinet, N. and Durret, F., **2020, accepted in A&A.**
Candidate fossil groups in the CFHTLS: a probabilistic approach
- 2020 Kuchner U.; Aragón-Salamanca A.; Pearce F.; Gray M.; Rost A.; Mu C.; Welker c.; Laigle C.; Hagggar R.; , Cui W.; **Sarron F.** Yepes G. and Knebe, A., **2020, accepted in MNRAS.**
Mapping and characterisation of cosmic filaments in galaxy cluster outskirts: Strategies and forecasts for observations from simulations.
- 2019 **Sarron, F.**; Adami, C.; Durret, F. and Laigle, C., **2019 A&A, 632, A49.**
Pre-processing of galaxies in cosmic filaments around AMASCFI clusters in the CFHTLS
- 2019 Darragh-Ford, E.; Laigle, C.; Gozaliasl, G.; Pichon, C.; Devriendt, J.; Slyz, A.; Arnouts, S.; Dubois, Y.; Finoguenov, A.; Griffiths, R.; Kraljic, K.; Pan, H.; Peirani, S.; **Sarron, F.**, **2019, MNRAS, 489, 5695.**
Group connectivity in COSMOS: a tracer of mass assembly history
- 2019 Euclid Collaboration, Adam, R.; Vannier, M.; Maurogordato, S.; Biviano, A.; [...] **Sarron, F.** [...], **2019, A&A, 627, A23.**
Euclid preparation III. Galaxy cluster detection in the wide photometric survey - performance and algorithm selection. *Contribution: co-author as a challenger in the Euclid Cluster Finder Challenge 4*
- 2018 **Sarron, F.**; Martinet, N.; Durret, F. and Adami, C., **2018, A&A, 613, A67.**
Evolution of the cluster optical galaxy luminosity function in the CFHTLS: breaking the degeneracy between mass and redshift
- 2016 Martinet, N.; Clowe, D.; Durret, F.; Adami, C.; Acebrón, A; Hernandez-García, L.; Márquez, I.; Guennou, L.; **Sarron, F.** and Ulmer, M., **2016, A&A, 590, A69.**
Weak lensing study of 16 DAFT/FADA clusters: Substructures and filaments
- 2016 Durret, F.; Márquez, I.; Acebrón, A.; Adami, C.; Cabrera-Lavers, A.; Capelato, H.; Martinet, N.; **Sarron, F.** and Ulmer, M., **2016, A&A, 588, A69.**
Searching for filaments and large-scale structure around DAFT/FADA clusters