

Anna Niemiec

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Research Experience

- 2018–present **Postdoctoral researcher**, *University of Michigan, USA*.
○ **Advisor:** Keren Sharon
- 2013–2014 **Research Internship**, *Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro - Brasil*.
○ **Thesis:** Strong lensing in the CS82 survey
○ **Advisor:** Martin Makler

Education

- 2014–2017 **PhD in "Astrophysics and Cosmology"**, awarded on 28/09/2017, *Laboratoire d'Astrophysique de Marseille/Aix Marseille Université, France*.
- 2012–2013 **Masters (2nd y.)**, *Université Paris VI (UPMC), France*.
Noyaux, Particules, Astroparticules et Cosmologie (NPAC), cosmology specialty
- 2011–2012 **Masters (1st y.)**, *Ecole Normale Supérieure de Cachan, France*.
Theoretical and experimental physics
- 2010–2011 **Bachelor**, *Ecole Normale Supérieure de Cachan, France*.
Science and Technology, physics specialty

Teaching & Supervision

- 2019 Supervision of an undergraduate research project
- 2014–2017 As a teaching assistant: practicals in Wave optics, Electronics, Geometric optics and Mathematics

Service to the community

Referee for MNRAS

Institutional responsibilities

- 2019 Organizer of the "Galaxy cluster seminars" at University of Michigan
- 2015–2017 Organizer of the "Tea Time Chat" meetings at LAM

Organisation of scientific meetings

- Feb 2019 BUFFALO meeting at University of Nevada Las Vegas (UNLV) - SOC (<https://conference.ipac.caltech.edu/buffalo2019unlv/>)
- Oct 2018 BUFFALO meeting at the Laboratoire d'Astrophysique de Marseille
- Jul 2017 Galaxy Clusters Across Cosmic Time Conference (Aix-en-Provence - France)

Collaboration memberships

- 2019-present Member of the ISSI International Team "Cluster Physics from space to reveal Dark Matter: current and future challenges"
- 2018-present Working group co-Lead in the Beyond Ultra-deep Frontier Fields And Legacy Observations (BUFFALO) collaboration

Outreach and Communication

- 2019 Member of the organization team of "Astronomy on Tap" events in Ann Arbor
- 11/2017 Communication in the "Lettre d'AMU" describing thesis work (https://www.univ-amu.fr/system/files/2019-02/DIRCOM-lettre_amu_n55_novembre2017_0.pdf p.26)
- 05/2017 Talk for general public in the conference series "13 Minutes Jeunes Chercheurs" (<https://vimeo.com/243808833>)
- 2014–2016 Facilitator at the "Fete de la science" at the LAM booth
- 2014–2015 Organizer of a series of astronomy workshops for inmates at Marseille's prison

Skills

- Programming Python, C, Bash
- Software Lenstool, DS9, Topcat, SExtractor, git
- Languages French (native), Polish (native), English (advanced), Spanish (basic knowledge)

Oral Presentations

Invited talk.

- 2019 St Mary's University (Halifax - Canada) *Seminar*

Contributed talks.

- 2019 Matera Oscura (Matera - Italy) *Conference*
- 2019 Great Lakes Cosmology Workshop (Rochester, NY - USA) *Workshop*
- 2019 Société Française d'Astronomie (SF2A) days (Nice - France) *Workshop*
- 2019 Lenstool days (Lyon - France) *Workshop*
- 2019 Durham University (UK) *Talk*
- 2017 Large Scale Structures Workshop (Granada - Spain) *Workshop*
- 2017 Galaxy Clusters Across Cosmic Time (Aix-en-Provence - France) *Conference*
- 2017 Galaxy Clusters conference (Santander - Spain) *Conference*
- 2016 eBOSS-DESI France meeting (Paris - France) *Collaboration meeting*
- 2016 GravLens (Leiden, the Netherlands) *Conference*
- 2016 Astronomical Data Analysis Summer School (Chania - Grece) *Workshop*
- 2016 eBOSS meeting (EPFL - Switzerland) *Collaboration meeting*
- 2015 MultiDarkLens meeting (MARseille - France) *Collaboration meeting*
- 2015 SDSS meeting (Madrid - Spain) *Collaboration meeting*

Publications

Published.

A. Niemiec, E. Jullo, C. Giocoli, M. Limousin and M. Jauzac. *Dark matter stripping in galaxy clusters: a look at the Stellar to Halo Mass relation in the Illustris simulation*. Monthly Notices of the Royal Astronomical Society, Volume 487, Issue 1, p.653-666. July 2019.

A. Niemiec, E. Jullo, A. Montero-Dorta, F. Prada, S. Rodríguez-Torres, E. Perez and A. Klypin. *Probing galaxy assembly bias with LRG weak lensing observations*. MNRAS: Letters, Volume 477, Issue 1, p.L1-L5, June 2018.

A. Montero-Dorta, E. Pérez, F. Prada, S. Rodríguez-Torres, G. Favole, A. Klypin, R. Cid Fernandes, R. M. González Delgado, A. Domínguez, A. S. Bolton, R. García-Benito, E. Jullo, **A. Niemiec**. *The Dependence of Galaxy Clustering on Stellar-mass Assembly History for LRGs*. The Astrophysical Journal Letters, Volume 848, Issue 1, article id. L2, October 2017.

A. Niemiec, E. Jullo, M. Limousin, C. Giocoli, T. Erben, H. Hildebrandt, J.-P. Kneib, A. Leauthaud, M. Makler, B. Moraes, M. E. S. Pereira, H. Shan, E. Rozo, E. Rykoff and L. Van Waerbeke. *Stellar-to-halo mass relation of cluster galaxies*. MNRAS, Volume 471, p.1153-1166, October 2017.

G. Favole, J. Comparat, F. Prada, G. Yepes, E. Jullo, **A. Niemiec**, J.-P. Kneib, S. A. Rodríguez-Torres, A. Klypin, R. A. Skibba, C. K. McBride, D. J. Eisenstein, D. J. Schlegel, S. E. Nuza, C. H. Chuang, T. Delubac, C. Yèche and D. P. Schneider. *Clustering properties of g-selected galaxies at $z \sim 0.8$* . MNRAS, Volume 461, Issue 4, p.3421-3431, October 2016.

F. Abe, C. Airey, E. Barnard, J. Baudrey, C. Botzler, D. Douchin, M. Freeman, P. Larsen, **A. Niemiec**, Y. Perrott, L. Philpott, N. Rattenbury and P. Yock. *Extending the Planetary Mass Function to Earth Mass by Microlensing at Moderately High Magnification*. MNRAS, Volume 431, p.2975-2985, June 2013.

Accepted for publication.

A. Niemiec, M. Jauzac, E. Jullo, M. Limousin, K. Sharon, J.-P. Kneib, P. Natarajan, J. Richard. *hybrid-Lenstool: A self-consistent algorithm to model galaxy clusters with strong- and weak-lensing simultaneously*

Under review.

E. J. Gonzalez, M. Chalela, M. Jauzac, D. Eckert, M. Schaller, D. Harvey, **A. Niemiec**, A. M. Koekemoer, D. Barnes, D. Clowe, T. Connor, J. M. Diego, J. D. Remolina Gonzalez, C. L. Steinhardt. *Setting the scene for BUFFALO: A study of the matter distribution in the HFF galaxy cluster MACS J0416.1-2403 and its parallel field*

In prep.

A. Niemiec, M. Jauzac, D. Lagattuta, G. Mahler, K. Sharon, D. Harvey. *Beyond the Ultra-deep Frontier Fields And Legacy Observations: a high-resolution strong+weak-lensing view of Abell 370*