Dr. Natalia Lahén

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Current position

1 Oct 2020 – 30 Sep 2023: Post-doctoral Fellow, Max Planck Institute for Astrophysics (MPA), Garching bei München, Germany

Education (Department of Physics, University of Helsinki, Finland)

June 2015 – Sep 2020 Doctor of Philosophy, Doctoral programme in Particle Physics and Universe Sciences (PAPU), major: Astronomy, supervisor: Prof. Peter H. Johansson

June 2014 – May 2015 Master of Science, major: Astronomy

Sep 2011 – June 2014 Bachelor of Science, major: Astronomy

Previous work experience

June 2015 – Sep 2020: Doctoral Candidate, Department of Physics, University of Helsinki, Finland

Sept 2014 – Apr 2015: Research assistant (50% part-time), Theoretical Extragalactic Research Group, Department of Physics, University of Helsinki, Finland

May 2014 – Aug 2014: Summer trainee, Theoretical Extragalactic Research Group at the Department of Physics, University of Helsinki, Finland

May 2013 – Aug 2013: Summer trainee, Institute of Seismology, Finland

Funding track record

Computing time at Supermuc-NG Tier-0 supercomputer hosted by the Leibniz Supercomputing Centre:

2021: Co-PI in project LYRA (pn73we), 39.4 million CPUh (PI Gutcke)

2019: Co-PI in project GRIFFIN (pn72bu), 30.6 million CPUh (PI Steinwandel)

Grants:

2015, 2016, 2017: Received and twice renewed €24 000 per annum for a total of €72 000 from Jenny and Antti Wihuri foundation for PhD Thesis research

Selected publications

Lahén N., Naab T., Kauffmann, G., *A panchromatic view of star cluster formation in a simulated dwarf galaxy starburst*, submitted to Monthly Notices of the Royal Astronomical Society, arXiv: 2111.14875

Lahén N., Naab T., Johansson, P. H., Elmegreen, B., Hu, C.-Y., Walch, S., *Structure and Rotation of Young Massive Star Clusters in a Simulated Dwarf Starburst*, Astrophysical Journal, 2020, 904, 71

Lahén N., Naab T., Johansson, P. H., Elmegreen, B., Hu, C.-Y., Walch, S., Steinwandel, U. P., Moster, B. P., *The GRIFFIN Project—Formation of Star Clusters with Individual Massive Stars in a Simulated Dwarf Galaxy Starburst*, Astrophysical Journal, 2020, 891, 2

Lahén N., Naab T., Johansson, P. H., Elmegreen, B., Hu, C.-Y., Walch, S., *The Formation of Low-metallicity Globular Clusters in Dwarf Galaxy Mergers*, Astrophysical Journal Letters, 2019, 879, L18

Lahén N., Johansson, P. H., Rantala A., Naab T., Frigo M., *The fate of the Antennae galaxies*, Monthly Notices of the Royal Astronomical Society, 2018, 475, 3934

Research highlights

Haufenweise Methusalem-Sterne, Bild der Wissenschaft 03/2022, by Thorsten Dambeck
How do star clusters form in dwarf galaxies? by N. Lahén, J. M. Hislop, T. Naab, and G. Kauffmann
Globular cluster formation deciphered by T. Naab
Featured Image: Growing Globular Clusters from Mergers by S. Kohler

Prices and other academic activities

2022:	€1 000 for The Väisälä prize for outstanding PhD Thesis in Astronomy awarded by the Finnish Astronomical Society
2020:	€2 000 award for "The conference organizer of the year" at the University of Helsinki, for organizing the "Linking the Milky Way and Nearby Galaxies" conference
2019:	LOC member of conference "Linking the Milky Way and Nearby Galaxies", 3 – 7 June at University of Helsinki, Finland
2018 – present:	Reviewer for The Astrophysical Journal and The Monthly Notices of the Royal Astronomical Society
2021 – present:	Member of the International Astronomical Society
2018 – present:	Member of the Finnish Astronomical Society and the European Astronomical Society.
2018 – 2021:	Auditor of the Finnish Astronomical Society

Selected conference presentations and seminars

2022:	Invited talk, *Toward resolved formation of globular clusters in galactic-scale hydrodynamical simulations*, at the Finnish Astronomer's Days 2022 in Jyväskylä, Finland
	Contributed talk, *Multiple populations in globular clusters: dwarf galaxy simulations with feedback from (very) massive stars*, Breakthroughs in Galaxy Formation, Ringberg, Gemany
2021:	Seminar talk, *Towards realistic globular cluster formation in simulated dwarf starbursts*, MPA institute seminar
2019:	Contributed talk, *The formation of low metallicity stellar clusters in dwarf galaxy mergers*, Linking the Milky Way and Nearby Galaxies, Helsinki, Finland
2018:	Contributed talk, *Evolution and detection of LSB features in a major merger*, National Astronomer's Days in Kuusamo, Finland
2017:	Contributed talk, *The fate of the Antennae galaxies*, Frontiers of Astrophysical Modeling held in Leuven, Belgium
2016:	Contributed talk, *Simulating the metallicity of the Antennae galaxies*, National Astronomer's Days, Tampere, Finland
	Contributed talk, *The fate of the Antennae galaxies*, Annual Tuorla-Tartu meeting, Turku, Finland
	Seminar talk, *The fate of the Antennae galaxies*, University of St Andrews, Scotland

Teaching and institutional responsibilities

Co-supervision of PhD candidates at MPA, Garching, Germany
Assistant teacher on Bachelor level Astronomy courses at the Department of Physics, University of Helsinki:

Fall semester in 2015, 2017, and 2019:	Galaxies and Cosmology
Fall semester in 2016 and 2018:	Structure of the Milky Way
Half of fall semester in 2015:	Fundamental Astronomy 2
Half of spring semester in 2014:	Fundamental Astronomy 1

2014 – 2015: Student member of the Department Council of the Department of Physics and the Working Group for Astronomy Teaching Development at the University of Helsinki, Finland