

PETE KUZMA

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EXPERIENCE

JSPS International Postdoctoral Fellow
National Astronomical Observatory of Japan

October 2023 - Present
Osawa, Tokyo, Japan

Postdoctoral Research Associate
University of Edinburgh

April 2020 - October 2023
Edinburgh, Scotland, UK

ERC Fellow PI: A. L. Varri

Commonwealth Rutherford Fellow
University of Edinburgh

March 2018 - February 2020
Edinburgh, Scotland, UK

EDUCATION

PhD - Astronomy and Astrophysics
Australian National University, Canberra, Australia
Supervisor: Prof. Gary Da Costa
Thesis: Extended Structures in Globular Clusters

April 2013 - December 2017

B.Sc. with First Class Honours in Astronomy and Astrophysics
Australian National University, Canberra, Australia
Honours Supervisor: Dr. Dougal Mackey
Honours Thesis: Probing the Kinematics of the Extended Cluster Terzan 8

February 2008 - December 2022

TECHNICAL STRENGTHS

Computer Languages (ordered by skill level)	Python, ASQI, SQL, C/C++, FORTRAN
Protocols & APIs	XML, JSON
Tools & Operating Systems	MAC OSX (main), Windows, Unix, Vim, Emacs
Astronomy Specific	IRAF/PyRAF, Source Extractor, PSFex, Astropy, PhotUtils and PyAstronomy

Other related skills: survey design, photometric/spectroscopic reduction pipelines, Bayesian inference, a basic understanding of machine learning frameworks such as SKLEARN and beginner knowledge of TENSORFLOW.

OBSERVING PROPOSALS AND EXPERIENCE

- *HSC narrow-band photometry of the M92 tidal stream*, Hyper Suprime Cam, Subaru Telescope, Mauna Kea (2024). (Co-I);
- *A Wide Field study of the Globular Cluster NGC 5824*, AAOmega, Anglo-Australian Telescope, Siding Springs Observatory (2022 - lost to weather, 2023). (PI);
- *A kinematics study of the tidal extensions of the Enigmatic Globular Cluster Omega Centauri*, FLAMES, Very Large Telescope, Paranal Observatory, 2022. (PI);
- *A kinematics study of the tidal extensions of the Enigmatic Globular Cluster Omega Centauri*, AAOmega, Anglo-Australian Telescope, Siding Springs Observatory, 2020 (Lost to weather). (PI);
- *Exploring Globular Cluster Peripheries with WEAVE*, WEAVE, William Herschel Telescope, Roque de los Muchachos Observatory. (Co-I);
- *The nature of the diffuse stellar envelope around the globular cluster M2.*, MegaCam, Canada France Hawaii Telescope, 2019. (Co-I);

- *Too small to succeed? The Nature of Extremely Massive Globular Clusters in the dIrr galaxy UGCA86*, ISIS, William Herschel Telescope, 2019. (Co-I);
- *A Wide-Field View of the Globular Cluster Population in and around NGC 1052*, MegaCam, Canada France Hawaii Telescope, 2020. (Co-I);
- *Do globular clusters contain dark matter?*, FLAMES, Very Large Telescope, 2018. (Co-I);
- *The Magellanic Periphery Survey*, DECam, Cerro Tololo International Observatory, 2017. (Co-I);

CONFERENCE CONTRIBUTIONS

Contributed Talks

- Astronomical Society of Japan's Spring Annual Meeting, Ibaraki University, Mita - Japan, 2024.
- Galactic Archaeology China-Japan Collaboration Meeting, NAOJ - Japan, 2024.
- A mini-workshop on the bulge in Tokyo, Expectation toward PFS surveys, University of Tokyo - Japan, 2024.
- Astronomical Society of Japan's Autumn Annual Meeting, Kwansei Gakuin University Sanda - Japan, 2024.
- Dark Matter in the Universe: The Present and Future of Galactic Archaeology and Near-field Cosmology, Matsushima - Japan, 2024.
- European Astronomical Society Annual Scientific Meeting, Krakow - Poland, 2023.
- National Astronomy Meeting of the Royal Astronomical Society, Cardiff - UK, 2023.
- European Astronomical Society Annual Scientific Meeting, Valencia - Spain, 2022.
- European Astronomical Society Annual Scientific Meeting, online only, 2021.
- Star Clusters: the Gaia Revolution, online, 2021.
- Week of WEAVE, Barcelona - Spain, 2019.
- IAUS 351: Star Clusters: from the Milky Way to the Early Universe, Bologna - Italy, 2019.
- Formation of Globular Clusters at High and Low Redshift, Sexten - Italy, 2018
- Multiple Populations in Globular Clusters: Where do we Stand?, Sexten - Italy, 2016.
- Astronomical Society of Australia's Annual Scientific Meeting., University of New South Wales - Australia, 2016.

Contributed Poster Presentations

- IAU 395: Stellar populations in the Milky Way and beyond, Paraty - Brazil, 2024.
- European Astronomical Society Annual Scientific Meeting, online, 2021.
- Satellites and Streams in Santiago, Santiago - Chile, 2015.
- Astronomical Society of Australia's Annual Scientific Meeting, Macquarie University - Australia, 2014.

TEACHING, DEPARTMENT RESPONSIBILITIES

- Coordinator of The Local Universe Reading Group, 2019 - 2023.
- Supervisor of Senior Honours and Winter School projects for undergraduates at the University of Edinburgh.
- Supervised and actively participated in the Work Experience Program at the Research School of Astronomy and Astrophysics.
- Devised a project and supervised undergraduate students as part of the ANU Winter School program.

SURVEY, COLLABORATIONS AND PANEL EXPERIENCES

- PFS Galactic Archaeology Survey, 2024 - current;
- UNIONS Galactic Archaeology Survey, 2024 - current;
- EUCLID Globular Cluster Observational Programme, 2023 - current.
- Stellar Cluster with 4MOST, 2019 - current (builder status).
- WEAVE Galactic Archaeology Survey, 2017 - current.
- LSST: UK Junior Associate, 2018 - 2023.
- ANU Telescope Allocation Committee, 2015.
- Organisation committee member for the annual Mt. Stromlo Christmas Student Seminars, 2013.