

WEI CHIEH (MASON) NG

Massachusetts Institute of Technology

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EDUCATION

- Massachusetts Institute of Technology (MIT)** 2018 - present
Ph.D. Candidate in Physics
Advisor: Professor Depto Chakrabarty; GPA: 4.60/5.00
- The University of Auckland** 2017
Bachelor of Science (Honours) in Physics
Advisor: Professor Richard Easther; GPA: 8.63/9.00
- The University of Auckland** 2014 - 2016
Bachelor of Science
Majors: Physics and Mathematics; GPA: 8.74/9.00

RESEARCH EXPERIENCE

- Massachusetts Institute of Technology** 09/2018 - present
Graduate Research Assistant, Advisor: Prof. Depto Chakrabarty
X-ray pulsation searches, timing, spectroscopic, and polarimetric analyses of pulsars (NICER/XMM-Newton/Swift/IXPE data)
- Australian National University** 02/2018 - 07/2018
Graduate Research Assistant, Advisor: Prof. Martin Asplund
Modeling stellar atmospheres in 3D with different magnetic field configurations and strengths
- Swinburne University of Technology** 12/2017 - 02/2018
Summer Vacation Scholar, Advisors: Dr. Nikki Nielsen and Assoc. Prof. Glenn Kacprzak
Kinematics of the OVI Circumgalactic Medium: Halo Mass Dependence and Outflow Signatures
- The University of Auckland** 02/2017 - 11/2017
BSc (Honours) Student, Advisor: Prof. Richard Easther
Inflationary Model Selection ft. Dark Matter in the CMB
- Australian National University** 11/2016 - 02/2017
Summer Scholar, Advisors: Assoc. Prof. Christian Wolf and Dr. Christopher Onken
Diagnosing poor seeing of the SkyMapper telescope
- The University of Auckland** 12/2015 - 02/2016
Summer Research Scholar, Advisor: Assoc. Prof. Jan Jamie Eldridge
Modelling the spectra of hot stars

PUBLICATIONS

Mason Ng, et al. 2021. *NICER Spectroscopy of NGC 300 ULX-1*. In preparation.

F.A. Fogantini, D. Altamirano, et al. (39 co-authors including **Mason Ng**) 2021. *Extreme X-ray flaring in Swift J1858.6–0814 as seen by NICER, XMM-Newton and NuSTAR*. In preparation.

NICER team (including **Mason Ng**) 2021. *Evidence for a Compact Object in the Aftermath of the Extra-Galactic Transient AT2018cow*. In press.

The LIGO Scientific Collaboration; the Virgo Collaboration; the KAGRA Collaboration (including **Mason Ng**) 2021. *Search for continuous gravitational waves from 20 accreting millisecond X-ray pulsars in O3 LIGO data*. Submitted.

Yuhan Yao, et al. (27 co-authors including **Mason Ng**) 2020. *A Comprehensive X-ray Report on AT2019wey*. ApJ, 920, 121.

Teruaki Enoto, Mason Ng et al. 2021. *A Month of Monitoring the New Magnetar Swift J1555.2-5402 during an X-Ray Outburst..* ApJ, 920, L4.

D. J. K. Buisson, et al. (including **Mason Ng**) 2021. *Dips and eclipses in the X-ray binary Swift J1858.6-0814 observed with NICER*. MNRAS, 503, 5600.

Peter Bult, et al. (including **Mason Ng**) 2021. *Long term coherent timing of the accreting millisecond pulsar IGR J17062–6143*. ApJ, 912, 120.

Mason Ng, Paul S. Ray, Peter Bult, Deepto Chakrabarty, et al. 2021. *NICER Discovery of Millisecond Pulsations and an Ultracompact Orbit in IGR J17494–3030*. ApJ, 908, L15.

Peter Bult, et al. (12 co-authors including **Mason Ng**) 2020. *The X-ray bursts of XTE J1739-285: a NICER sample*. ApJ, 907, 79.

M. Ng, N.M. Nielsen, G.G. Kacprzak et al. 2019. *Kinematics of the OVI Circumgalactic Medium: Halo Mass Dependence and Outflow Signatures*. ApJ, 886, 66.

J.J. Eldridge, E.R. Stanway, et al. (7 co-authors including **M. Ng**) 2017. *Binary Population and Spectral Synthesis Version 2.1: construction, observational verification and new results*. PASA, 34.

PRESENTATIONS

Poster - Celebrating 20 Years of Chandra Science Symposium <i>Spectral Evolution of NGC 300 ULX-1</i>	2019
Invited Talk - Auckland Astronomical Society <i>Modelling the spectra of hot stars</i>	2016
Talk - Royal Astronomical Society of New Zealand Conference <i>Modelling the spectra of hot stars</i>	2016

TECHNICAL SKILLS

Programming	Python, HTML/CSS, IDL, L ^A T _E X
High Performance Computing	OpenMP, MPI, Slurm

HONORS & AWARDS

Graduate Service Award, Physics Department (<i>Massachusetts Institute of Technology</i>)	2021
Department of Physics Scholarship, 2017 (<i>The University of Auckland</i>)	2016
University of Auckland Postgraduate Honours/PG Diploma Scholarships	2016
Joyce Mary Clark Scholarship (<i>The University of Auckland</i>)	2016
First in Course Award (x6) (<i>The University of Auckland</i>)	2014 - 2017
Scholarship (<i>New Zealand Qualifications Authority</i>)	2014
The Trusts Charitable Foundation Scholarship (<i>The Trusts Charitable Foundation</i>)	2013
Dux Litterarum (<i>Lynfield College</i>)	2013

TEACHING EXPERIENCE

Graduate Teaching Assistant for 8.901 <i>Department of Physics, Massachusetts Institute of Technology</i>	Spring 2021
Graduate Teaching Assistant for 8.282J and 8.284 <i>Department of Physics, Massachusetts Institute of Technology</i>	Spring 2020
Graduate Teaching Assistant (Physics) for PHYSICS 107/107G <i>Department of Physics, The University of Auckland</i>	2017
Marker (MATHS 110/150/208/250/362) <i>Department of Mathematics, The University of Auckland</i>	2015 - 2017
Teaching Assistant for PHYSICS 107/107G/120 <i>Department of Physics, The University of Auckland</i>	2015 - 2016

LEADERSHIP & OUTREACH

Graduate Student Member <i>Graduate Admissions Committee, Department of Physics, MIT</i>	2020 - present
Co-Organizer <i>Physics Graduate Application Assistance Program, Department of Physics, MIT</i>	2020 - present
Chair of Development Subcommittee <i>MIT Graduate Student Council External Affairs Board</i>	2020 - present
Committee Member (Graduate Student) <i>MIT Open Space Programming Advisory Committee</i>	2019 - present
Co-Chair of Public Outreach Subcommittee <i>MIT Graduate Student Council External Affairs Board</i>	2019 - 2020
MITvote Graduate Liaison <i>MITvote</i>	2018 - present
Volunteer Observer <i>MIT Sidewalk Astrogazers</i>	2018 - present
Executive Member <i>Science Students' Association</i>	2017
President <i>The Physics Association of The University of Auckland (PAUA)</i>	2015 - 2017