

Marc Teng Yen Hon

Institute for Astronomy
University of Hawai'i, United States
Email: mtyhon@hawaii.edu
Website: mtyhon.github.io

Principal Interests	Asteroseismology, Red Giants, Stellar Physics, Stellar Populations, Machine Learning	
Education	UNSW Sydney, New South Wales, Australia <i>Doctor of Philosophy</i> , Astrophysics, July 2020 Thesis: Deep Learning in Asteroseismology Advisor: Dennis Stello University of Wollongong, New South Wales, Australia <i>Bachelor of Science Advanced (First Class Honours)</i> , Physics and Mathematics, December 2015 Thesis: Magnetic Vortices in Micro-magnetic Materials Advisor: Alexey Pan	
Awards and Scholarships	Dean's Award for Outstanding PhD Theses	2021
	Nvidia Developer GPU Grant	2018
	UNSW International Tuition Fee Scholarship	2016
	University of Wollongong (UoW) University Medal	2015
	UoW Australian Institute of Physics Prize	2015
	UoW Kittel-Lewis Prize	2015
	UoW David Martin Award	2015
	UoW Australian Institute of Physics Prize	2015
Presentations	Astronomy Department colloquium, Yale University, New Haven, USA	2021
	Institute for Astronomy colloquium, University of Hawai'i, USA	2021
	TASC-5/KASC-12, MIT, Cambridge, USA (Contributed Talk)	2019
	TASC-4/KASC-11, Stellar Astrophysics Center, Aarhus, Denmark (Contributed Talk)	2018
	Computational Physics Lecture, UNSW Sydney, Sydney, Australia (Guest Lecture)	2018
	SAGE Seminar, Max Planck Institute for Solar System	2018

	Research, Göttingen, Germany (Invited Talk)	
	Stars in Sydney, Macquarie University, Sydney, Australia (Contributed Talk)	2017
	TASC-3/KASC-10, Birmingham University, Birmingham, England (Contributed Poster)	2017
Teaching Experience	Academic Tutor, School of Physics, UNSW Sydney Third-year Astrophysics	Semester 3 2019
	Research Supervisor, School of Physics, UNSW Sydney Honours project co-supervisor	2019
	Taste of Research undergraduate program (6 students)	2017-2019
	Teaching Assistant, University of Wollongong First-year Physics	2015
	Second-year Electromagnetism	2015
Community Service and Membership	<i>TESS</i> Asteroseismic Science Consortium Member	2016-present
	<i>Kepler</i> Asteroseismic Science Consortium Member	2016-present
	Astronomical Society of Australia Member	2017-present
	Journal Referee for <i>Astronomy & Astrophysics</i>	2018-present
	Journal Referee for <i>Monthly Notices of the Royal Astronomical Society</i>	2019-present
	Journal Referee for <i>The Astrophysical Journal</i>	2020-present
Observing Experience	Anglo-Australian Telescope 3.9 meter, HERMES spectograph	9 nights
Proposals	The K2-HERMES follow-up program, AAT, 69n, Co-I	2016-2019
	The HERMES-TESS program, AAT, 31n, Co-I	2016-2018
Selected Press	"How AI Can Determine the Future of Red Giants Like Our Sun", Nvidia Blog	Aug 2017
	"Scientists Are Using Artificial Intelligence to Plot the Galaxy", Inverse	May 2017
References	Dennis Stello Associate Professor School of Physics UNSW Sydney	Email: d.stello@unsw.edu.au

Daniel Huber

Assistant Astronomer (faculty)
Institute for Astronomy
University of Hawai'i – Manoa

Email: huberd@hawaii.edu

PUBLICATION LIST

Summary: 31 total, 7 first author; 872+ citations; h-index¹: 17

First Author Publications

1. **Hon, M.**; Kuszlewicz, J. S.; Huber, D.; et al.. *"HD-TESS: An Asteroseismic Catalog of Bright Red Giants within TESS Continuous Viewing Zones"*, 2022, AJ, Accepted.
2. **Hon, M.**; Huber, D.; Kuszlewicz, J. S.; et al.. *"A 'Quick Look' at All-Sky Galactic Archeology with TESS: 158,000 Oscillating Red Giants from the MIT Quick-Look Pipeline"*, 2021, ApJ, 919, 131.
3. **Hon, M.**; Bellinger, E. P.; Hekker, S.; et al.. *"Asteroseismic Ages of Subgiant Stars with Deep Learning"*, 2020, MNRAS, 499, 2445.
4. **Hon, M.**; Stello, D.; García, R. A.; et al.. *"A search for red giant solar-like oscillations in all Kepler data"*, 2019, MNRAS, 485, 5616.
5. **Hon, M.**; Stello, D.; Zinn, J.. *"Detecting Solar-like Oscillations in Red Giants with Deep Learning"*, 2018, ApJ, 859, 64.
6. **Hon, M.**; Stello, D.; Yu, J.. *"Deep learning classification in asteroseismology using an improved neural network: results on 15 000 Kepler red giants and applications to K2 and TESS data"*, 2018, MNRAS, 476, 3233.
7. **Hon, M.**; Stello, D.; Yu, J.. *"Deep learning classification in asteroseismology"*, 2017, MNRAS, 469, 4578.

Contributing Author Publications: Detecting/Characterizing Red Giant Oscillations

8. Borre, C. C. ; Aguirre Børsen-Koch, V.; Helmi, A.; et al. including **Hon, M.**. *"Age determination of galaxy merger remnant stars using asteroseismology "*, 2022, MNRAS, 514, 2527.
9. Sharma, S. ; Stello, D.; Zinn, J. C.; et al. including **Hon, M.**. *"The K2 Galactic Archaeology Program: Overview, target selection and survey properties"*, 2022, MNRAS, accepted.
10. Zinn, J. C. ; Stello, D.; Elsworth, Y.; et al. including **Hon, M.**. *"The K2 Galactic Archaeology Program Data Release 3: Age-abundance patterns in C1-C8, C10-C18"*, 2022, ApJ, 926, 191.
11. Audenart, J.; Kuszlewicz, J. S. ; Handberg, R.; et al. including **Hon, M.**. *"TESS Data for Asteroseismology (T'DA) Stellar Variability Classification Pipeline: Set-Up and Application to the Kepler Q9 Data "*, 2021, AJ, 162, 209.
12. Grunblatt, S. K.; Zinn, J. C. ; Price-Whelan, A. M.; et al. including **Hon, M.**. *"Age-dating Red Giant Stars Associated with Galactic Disk and Halo Substructures"*, 2021, ApJ, 916, 19.

¹Bibliographical source: NASA's ADS, the most up-to-date source of astronomical journal publications.

13. Zinn, J. C. ; Stello, D.; Elsworth, Y.; et al. including **Hon, M.**. "*The K2 Galactic Archaeology Program Data Release 2: Asteroseismic Results from Campaigns 4, 6, and 7*", 2020, ApJS, 251, 26.
14. Silva Aguirre, V.; Stello, D.; Stokholm, A; et al. including **Hon, M.**. "*Detection and Characterization of Oscillating Red Giants: First Results from the TESS Satellite*", 2020, ApJL, 889, 2.
15. Grunblatt, S.; Huber, D.; Gaidos, E; et al. including **Hon, M.**. "*Giant planet occurrence within 0.2 AU of low-luminosity red giant branch stars with K2*", 2019, AJ, 158, 227.
16. Bonanno, A.; Corsaro, E.; Del Sordo, F.; et al. including **Hon, M.**. "*Acoustic oscillations and dynamo action in the G8 sub-giant EK Eridani*", 2019, A&A, 628, 7.
17. Huber, D.; Chaplin, W. J.; Chontos, A.; et al. including **Hon, M.**. "*A Hot Saturn Orbiting an Oscillating Late Subgiant Discovered by TESS*", 2019, AJ, 157, 14.
18. Sharma, S.; Stello, D.; Bland-Hawthorn, J.; et al. including **Hon, M.**. "*The K2-HERMES Survey: Age and Metallicity of the Thick Disc*", 2019, MNRAS, 490, 5335.

Contributing Author Publications: Asteroseismic Data Analysis and Machine Learning

19. Stello, D. ; Saunders, N.; Grunblatt, S.; et al. including **Hon, M.**. "*TESS asteroseismology of the Kepler red giants*", 2022, MNRAS, 512, 1677.
20. Reyes, C. ; Stello, D.; **Hon, M.**; et al.. "*Vetting asteroseismic $\Delta\nu$ measurements using neural networks*", 2022, MNRAS, 511, 5578.

Contributing Author Publications: Red Giant Evolutionary States

21. Sharma, S.; Hayden, M. R.; Bland-Hawthorn, J.; et al. including **Hon, M.**. "*Fundamental relations for the velocity dispersion of stars in the Milky Way*", 2021, MNRAS, 506, 1761.
22. Hill, M. L.; Kane, S.R.; Campante, T. L.; M. N.; et al. including **Hon, M.**. "*Asteroseismology of iota Draconis and Discovery of an Additional Long-Period Companion*", 2021, AJ, accepted.
23. Martell, S. L.; Simpson, J. D.; Subramaniam, A.G.; et al. including **Hon, M.**. "*The GALAH survey: a census of lithium-rich giant stars*", 2021, MNRAS, 505, 5340.
24. Campante, T. L.; Corsaro, E.; Lund, M. N.; et al. including **Hon, M.**. "*TESS Asteroseismology of the known red-giant host stars HD 212771 and HD 203949*", 2019, ApJ, 885, 35.
25. Elsworth, Y.; Hekker, S.; Johnson, J. A.; et al. including **Hon, M.**. "*Insights from the APOKASC Determination of the Evolutionary State of Red-Giant Stars by consolidation of different methods* ", 2019, MNRAS, 489, 4641.

26. Arentoft, T.; Grundahl, F.; White, T. R.; et al. including **Hon, M.**. “*Asteroseismology of the Hyades red giant and planet host ϵ Tauri*”, 2019, A&A, 622, 12.
27. Silva Aguirre, V.; Bojsen-Hansen, M.; Slumstrup, D.; et al. including **Hon, M.**. “*Confirming chemical clocks: asteroseismic age dissection of the Milky Way disc(s)*”, 2018, MNRAS, 475, 5487.
28. Wu, Y.; Xiang, M.; Bi, S.; et al. including **Hon, M.**. “*Mass and age of red giant branch stars observed with LAMOST and Kepler*”, 2018, MNRAS, 475, 3633.
29. Yu, J.; Huber, D.; Bedding, T. R.; et al. including **Hon, M.**. “*Asteroseismology of 16,000 Kepler Red Giants: Global Oscillation Parameters, Masses, and Radii*”, 2018, ApJS, 236, 18.

Contributing Author Publications: Contributed Observational Data

30. Wittenmyer, R. A.; Sharma, S.; Stello, D.; et al. including **Hon, M.**. “*The K2-HERMES Survey. I. Planet-candidate Properties from K2 Campaigns 1-3*”, 2018, AJ, 155, 10.
31. Sharma, S.; Stello, D.; Buder, S.; et al. including **Hon, M.**. “*The TESS-HERMES survey data release 1: high-resolution spectroscopy of the TESS southern continuous viewing zone*”, 2018, MNRAS, 473, 2004.