Ming-Yi Jeffrey MEI

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EDUCATION

Massachusetts Institute of Technology, Cambridge, MA 02139
Woods Hole Oceanographic Institution, Woods Hole, MA 02543
Ph.D., MIT-WHOI Joint Program in Applied Ocean Science & Engineering, expected June 2020

New York University Abu Dhabi, Abu Dhabi, UAE
B.S. *cum laude*, May 2015. Major in Physics and Mathematics, GPA: 3.8/4.0
GRE: 168 (Q, 95th percentile); 167 (V, 97th); 5.5 (A, 98th)

HONOURS AND AWARDS

New York University Honors Scholar, 2015
New York University Abu Dhabi Summer Research Grant, Summer 2014
New York University Abu Dhabi Undergraduate Conference Grant, January 2014
New York University Abu Dhabi Summer Research Grant, Summer 2013
New York University Abu Dhabi Summer Research Grant, Summer 2012
New York University Abu Dhabi full scholarship, 2011
University of Auckland full scholarship, 2010
Medal (top 0.01%) in Australian Mathematics Competition, 2010
New Zealand Outstanding Scholar Award (top 30 students in NZ), 2010
First place, New Zealand's Next Top Engineering Scientist Competition, 2010

ACADEMIC PUBLICATIONS

Mei, M. Jeffrey, David M. Holland, Sridhar Anandakrishnan, Tiantian Zheng. "Calving localization at Helheim Glacier using multiple local seismic stations." *The Cryosphere*, 11, 609-618, doi:10.5194/tc-11-609-2017, 2017.

Holland, D.M., D. Voytenko, K. Christianson, T.H. Dixon, **M.J. Mei**, B.R. Parizek, I. Vankova, R.T. Walker, J.I. Walter, K. Nicholls, and D. Holland. "An intensive observation of calving at Helheim Glacier, East Greenland." *Oceanography* 29(4):46–61. 2016. [link]

Zaw, I., **M. J. Mei**, L. Greenhill. "H2O Maser Luminosity: a Proxy for AGN Activity and SMBH Mass". *The Astrophysics Journal* (in review).

PROFESSIONAL AFFILIATIONS

Junior Member, American Astronomical Society, 2013 – 2015
Student Member, American Geophysical Union, 2015 – present

PROJECT EXPERIENCE

Sea Ice Topography, Woods Hole Oceanographic Institution, 2016-
Graduate research assistant
- Used OpenCV to process images to identify cracks in sea ice, then used edge detection techniques and contouring to isolate them for further analysis
- Used NumPy and SciPy to run statistical tests on ice thickness distribution
- Automated complete process using a mixture of command line tools and Python
- Used SVMs and ConvNets (sklearn, Theano in Python) to classify images based on sea ice type

Seismicity in Glaciers, NYUAD, 2015-6
Undergraduate research assistant
- Wrote scripts using ObsPy and NumPy to stitch together 10000 seismic traces
- Wrote scripts to identify glacier collapse events using an empirical algorithm

HiggsHunters, NYU, 2014, www.higgshunters.org
Undergraduate research assistant
- Wrote scripts in Python to take simulated particle creation data from the Large Hadron Collider at CERN to automatically show the location of particle creation events to users after applying a nonlinear magnification scheme
- Removed duplicate and corrupted data files using sorting mechanisms in NumPy
- Wrote up documentation in LaTeX for other collaborators

OTHER SKILLS AND INTERESTS

Native-speaker fluency in English, Mandarin Chinese; fluent in German; intermediate level of Russian, Latin, Braille.
Experienced in Python, SQL, R, LaTeX
Grade 8 in Clarinet Performance (Trinity Guildhall London)
Advanced Diploma in Tap Dancing (Ballet Australasia Ltd.)
PADI-certified Open Water Diver