Curriculum Vitae

Spencer Wallace

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EDUCATION

University of Washington *2015 - Present*
PhD Astronomy (in progress, expected August 2022)
Advisor: Thomas Quinn
Thesis Topic: Planetesimal Accretion in the Solar System and Beyond

University of Arizona *2009-2014*
BS Astronomy, Physics and Computer Science
Advisor: David Arnett
Thesis Topic: Turbulent Entrainment in 1D Stellar Evolution Models

SUCCESSFUL PROPOSALS

Contributed to Successful NSF Grant *2020*
In Situ Formation of Short Period Terrestrial Planets

Contributed to Successful XSEDE Computing Proposal *2019, 2020*
N-body Simulations: Planets to Cosmology

TEACHING EXPERIENCE

Graduate Teaching Assistant (12 appointments) *2015-2020*
ASTR101, ASTR102 - Introductory Astronomy
ASTR150 - Planetary Astronomy
ASTR421 - Stellar Observations and Theory

MENTORING EXPERIENCE

Sarah Kahle (UW Undergraduate) *2018-2019*
Analyzed a suite of N-body simulations to understand the planetesimal accretion phase at short orbital periods

Lynn Nguyen (UW Undergraduate) *2018-2020*
Constructed and ran high resolution simulations of planetesimal growth in the asteroid belt to match the present-day size distribution

Dawn Gershimer (UW Undergraduate) *2019-2020*
Analyzed a series of N-body simulations to test whether solids collected at the MRI boundary in a protoplanetary disk can undergo oligarchic growth

Natasha Ciboulet (UW Undergraduate) *2019-Present*
Working to implement a fast and efficient collisional fragmentation model for planetesimals in the N-body code ChaNGa

PUBLICATIONS

Wallace, S., Quinn, T., Boley, A., "Collision rates of planetesimals near mean-motion resonances", **MNRAS**, 503(4):5409–5424 (2021).

Wallace, S. and Quinn, T., "N-body simulations of terrestrial planet growth with resonant dynamical friction", **MNRAS**, 489(2):2159–2176 (2019).

Kim, J., Agertz, O., Teyssier, R., Butler, M., Ceverino, D., Choi, J., Feldmann, R., Keller, B., Lupi, A., Quinn, T., Revaz, Y., Wallace, S (and 31 more), "The AGORA High-resolution Galaxy Simulations Comparison Project. II. Isolated Disk Test", **ApJ**, 833(2):202 (2016).
Developed a modified stellar feedback model for ChaNGa *and ran simulations for comparison with other galaxy simulation codes*

Johnson, C., Green, E., Wallace, S., O'Malley, C., Amaya, H., Biddle, L., Fontaine, G., "Photometric Survey to Search for Field sdO Pulsators", *arXiv:1308.1373* (2014).
Conducted multiple nights of photometric observations for a large collection of hot subdwarfs

CONFERENCE PRESENTATIONS

TESS Science Conference II, Poster	*August 2021*
Sagan Exoplanet Summer Workshop, Poster	*July 2021*
52nd AAS Division for Dynamical Astronomy Meeting, Contributed Talk	*May 2021*
1st N-body Shop Collaboration Meeting, Contributed Talk	*January 2021*
50th AAS Division for Dynamical Astronomy Meeting, Contributed Talk	*June 2019*
49th AAS Division for Dynamical Astronomy Meeting, Contributed Talk	*April 2018*
223rd AAS Meeting, Poster	*January 2014*

OUTREACH AND SERVICE

Published over 20 articles as a writer for *Astrobites*	*2019-2021*
Pre-Major in Astronomy Program Mentor	*2018-Present*
Public Program Specialist, Kitt Peak National Observatory	*2014-2015*

HONORS AND AWARDS

Glenn Purviance Memorial Astronomy Scholarship	*2013*
Galileo Circle Scholarship	*2013*
Arizona Assurance Grant	*2009-2013*
Wildcat Excellence Tuition Award	*2009-2014*