Andrew Michael Jones

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PROFESSIONAL EXPERIENCE

Sandia National Laboratory (NM) - Postdoctoral Appointee

- December 2022 - Present
- Thermal and Fluids Group (1513)
- High performance computing software design and development using meshfree methods.
- Plasma physics model.

Sandia National Laboratory (NM) - Graduate Research Intern

- May 2020 - December 2022
- Computer Science Research Institute (CSRI) Computational Science Group (1446)
- Thermal and Fluids Group (1513)
- High performance computing software design and development using meshfree methods.
- Atmospheric flow and plasma physics modeling.

Boise State University - Graduate Research Assistant

- September 2019 - Present
- Mathematics Department
- Numerical Partial Differential Equations (PDEs).
- Software design and development.
- Data visualization.

Boise State University - Graduate Teaching Assistant

- August 2018 - August 2019
- Computer Science Department
- Java II

Kennesaw State University - Student Assistant

- February 2018 - May 2018
- Physics Department.
- Physics I and II (Mechanics and Electromagnetism) .

EDUCATION **Kennesaw State University - Kennesaw, Georgia**
B.S. in Physics, August 2015 - May 2018.
Emphasis: General Physics

Boise State University - Boise, Idaho
Ph.D. in Computing, August 2018 - December 2022.
Emphasis: Computational Science, Mathematics and Engineering

COMPUTER SKILLS ***Programming Languages****: Python, C, C++, FORTRAN, Bash, Git*
Operating Systems*: Linux (Ubuntu, CentOS, Redhat, ElementaryOS), Windows*

CONFERENCES

Posters

- "Alpha Radiation Detector Development and Testing Under Various Conditions", National Council Undergraduate Research (NCUR) 2017, 4/7/2017. Kennesaw State University Symposium of Student Scholars, 4/20/2017.
- "Towards a Hybrid RBF-SEM Framework for Bulk-Surface PDEs", Biennial Society of Industrial Applied Mathematics Pacific NorthWest Section Meeting 2019, 10/20/2019.
- "Meshfree Multilevel Methods for Surface PDEs", Society of Industrial Applied Mathematics Computational Science and Engineering (CSE) Conference 2021, 03/02/2021.

Talks

- "The strange and but yet unexplained behavior of the most massive black holes in the Universe", Georgia Regional Astronomers Meeting (GRAM), 10/28/2017.
- "Preliminary CFD study of Pebble Size and its Effect on Heat Transfer in a Pebble Bed Reactor", American Physical Society Division of Fluid Dynamics (APS DFD), 11/20/2017.
- "Meshfree Multilevel Methods", Copper Mountain Conference on Iterative and Multigrid Methods, 04/07/2022.

PUBLICATIONS

- Grady B. Wright, Andrew M. Jones, Varun Shankar, MGM: A meshfree geometric multilevel method for systems arising from elliptic equations on point cloud surfaces. (2022). **articlelink**.
- Andrew M. Jones and Peter. A. Bosler. Radial Basis Functions in the Tangent Plane: Meshfree Approximation Methods for the Sphere. Computer Science Research Institute Summer Proceedings 2020, pages 57–67. (2020).

- David Garofalo, Damian J. Christian, Andrew M. Jones, The sub-Eddington boundary for the quasar mass-luminosity plane: A theoretical perspective, Universe, (2019) **articlelink**
- David Garofalo, Chandra B. Singh, Dylan T. Walsh, Damian J. Christian, Andrew M. Jones, Alexa Zack, Brandt Webster, Matthew I. Kim, The redshift distribution of BL Lacs and FSRQs, Research in Astronomy and Astrophysics, (2018) **articlelink**