Benjamin Lee Davis
New York University Abu Dhabi
Abu Dhabi, Abu Z,aby [Abu Dhabi] United Arab Emirates
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Availability:
Job Type: Permanent, Presidential Management Fellows, Multiple Appointment Types, Telework
Work Schedule: Full-time

Work Experience:
Research Associate
New York University Abu Dhabi
New York University Abu Dhabi
A2-166G Building
Abu Dhabi, Saadiyat Island, AZ

9/2020 - Present
Salary: $60,000.00 USD Per Year
Hours per week: 40
Duties, Accomplishments and Related Skills:
Center for Astrophysics and Space Science (CASS) Fellow

Postdoctoral Fellow
Swinburne University of Technology
Mail Number H20, PO Box 218
Hawthorn, VIC

8/2016 - 7/2020
Salary: $93,896.00 AUD Per Year
Hours per week: 40
Duties, Accomplishments and Related Skills:
Reducing and analyzing galaxy images via bulge/bar/disc decompositions. I will be responsible for modeling the radial distribution of optical and/or near-infrared stellar light in nearby (less than 200 Mpc) galaxies with an emphasis on discoveries and publications related to the (central black hole)-(host bulge) connection and/or compact massive spheroids and/or galaxies with partially depleted cores or additional nuclear components.
Supervisor: Alister Graham (+61392148784)
Okay to contact this Supervisor: Yes

Visiting Assistant Professor of Physics
Arkansas Tech University
1701 N. Boulder Avenue
Russellville, AR

8/2015 - 5/2016
Salary: $49,500.00 USD Per Year
Hours per week: 40
Duties, Accomplishments and Related Skills:
I taught Introduction to Physical Sciences, Introduction to Physical Sciences Laboratory, Physics I Laboratory, Physics II Laboratory, and General Physics II.
Supervisor: Jim Musser (+15733414781)
Okay to contact this Supervisor: Yes

Visiting Assistant Professor of Physics
University of Arkansas
825 West Dickson Street

Fayetteville, AR

8/2015 - 12/2015
Salary: $9,000.00 USD Piece Work
Hours per week: 20
Duties, Accomplishments and Related Skills:
Taught University Physics I and supervised its laboratories.
Supervisor: Julio Gea-Banacloche (+14795757240)
Okay to contact this Supervisor: Yes

Education:
University of Arkansas Fayetteville, AR United States
Doctorate degree 5 / 2015
GPA: 4.0000 of a maximum 4.0000
Credits Earned: 117 Semester Hours
Major: Space and Planetary Sciences
Relevant Coursework, Licenses and Certifications:
Visiting Student Research Program Intern at the Jet Propulsion Laboratory (2011).
Pittsburg State University Pittsburg, KS United States
Bachelor's degree 5 / 2008
GPA: 3.9397 of a maximum 4.0000
Credits Earned: 199 Semester Hours
Major: Mathematics and Physics **Minor:** Music **Honors:** Magna Cum Laude

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Job Related Training:
Visiting Student Research Program Intern at Jet Propulsion Laboratory (2011)

Language Skills:
English

Spoken	Advanced
Written	Advanced
Read	Advanced

Affiliations:
Cosmic Explorer Consortium - Member
LISA Consortium - Member
ARC Centre of Excellence for Gravitational Wave Discovery - Affiliate

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Professional Publications:
https://bendavis007.github.io/My%20EndNote%20Library.htm

Shields, D., Boe, B., Pfountz, C., Davis, B. L., Hartley, M., Miller, R., . . . Kennefick, J. (2022). Spirality: A Novel Way to Measure Spiral Arm Pitch Angle. Galaxies, 10, 100

Sahu, N., Graham, A., & Davis, B. (2022). The Morphology-dependent Black Hole - Host Galaxy Correlations: A Consequence of Physical Formation Processes. Acta Astrophysica Taurica, 3, 39-43

Fusco, M. S., Davis, B. L., Kennefick, J., Kennefick, D., & Seigar, M. S. (2022). Probing the Low-Mass End of the Black Hole Mass Function via a Study of Faint Local Spiral Galaxies. Universe, 8(12), 649

Hon, D. S.-H., et al. (2022) ``Disc cloaking: Establishing a lower limit to the number density of local compact massive spheroids/bulges and the potential fate of some high-z red nuggets," MNRAS., 514, 3410

Abdeen, S., et al. (2022) ``Evidence in favour of density wave theory through age gradients observed in star formation history maps and spatially resolved stellar clusters," MNRAS, 512, 366

Sahu, N., A. W. Graham, & B. L. Davis (2022) ``The (Black Hole Mass)-(Spheroid Stellar Density) Relations: M $_{BH}$-{\ensuremath{\mu}} (and M $_{BH}$-{\ensuremath{\Sigma}}) and M $_{BH}$-{\ensuremath{\rho}},'' ApJ, 927, 67

Graham, A. W., et al. (2021) ``Central X-Ray Point Sources Found to Be Abundant in Low-mass, Late-type Galaxies Predicted to Contain an Intermediate-mass Black Hole,'' ApJ, 923, 246

Graham, A. W., et al. (2021) ``Potential Black Hole Seeding of the Spiral Galaxy NGC 4424 via an Infalling Star Cluster,'' ApJ, 923, 146

Davis, B. L. & A. W. Graham (2021) ``Refining the mass estimate for the intermediate-mass black hole candidate in NGC 3319,'' PASA, 38, e030

Sahu, N., A. W. Graham, & B. L. Davis (2020) ``Defining the (Black Hole)-Spheroid Connection with the Discovery of Morphology-dependent Substructure in the M$_{BH}$-n$_{sph}$ and M$_{BH}$-R$_{e,sph}$ Diagrams: New Tests for Advanced Theories and Realistic Simulations,'' ApJ, 903, 97

Abdeen, S., et al. (2020) ``Determining the co-rotation radii of spiral galaxies using spiral arm pitch angle measurements at multiple wavelengths,'' MNRAS, 496, 1610

Sahu, N., A. W. Graham, & B. L. Davis (2019) ``Revealing Hidden Substructures in the M $_{BH}$-{\ensuremath{\sigma}} Diagram, and Refining the Bend in the L-{\ensuremath{\sigma}} Relation,'' ApJ, 887, 10

Sahu, N., A. W. Graham, & B. L. Davis (2019) ``Black Hole Mass Scaling Relations for Early-type Galaxies. I. M $_{BH}$-M $_{*,}$ $_{sph}$ and M $_{BH}$-M $_{*,gal}$,'' ApJ, 876, 155

Davis, B. L., A. W. Graham, & F. Combes (2019) ``A Consistent Set of Empirical Scaling Relations for Spiral Galaxies: The (v $_{max}$, M $_{oM}$)-({\ensuremath{\sigma}} $_{0}$, M $_{BH}$, {\ensuremath{\phi}}) Relations,'' ApJ, 877, 64

Miller, R., et al. (2019) ``Investigating the Origins of Spiral Structure in Disk Galaxies through a Multiwavelength Study,'' ApJ, 874, 177

Davis, B. L., A. W. Graham, & E. Cameron (2019) ``Black Hole Mass Scaling Relations for Spiral Galaxies. I. M $_{BH}$-M $_{*,sph}$,'' ApJ, 873, 85

Graham, A. W., R. Soria, & B. L. Davis (2019) ``Expected intermediate-mass black holes in the Virgo cluster - II. Late-type galaxies,'' MNRAS, 484, 814

Davis, B. L., A. W. Graham, & E. Cameron (2018) ``Black Hole Mass Scaling Relations for Spiral Galaxies. II. M $_{BH}$-M $_{*,tot}$ and M $_{BH}$-M $_{*,disk}$,'' ApJ, 869, 113

Davis, B. L., A. W. Graham, & M. S. Seigar (2017) ``Updating the (supermassive black hole mass)-(spiral arm pitch angle) relation: a strong correlation for galaxies with pseudobulges,'' MNRAS, 471, 2187

Koliopanos, F., et al. (2017) ``Searching for intermediate-mass black holes in galaxies with low-luminosity AGN: a multiple-method approach,'' A\&A, 601, A20

Mutlu-Pakdil, B., M. S. Seigar, & B. L. Davis (2016) ``The Local Black Hole Mass Function Derived from the MBH-P and the MBH-n Relations,'' ApJ, 830, 117

Pour-Imani, H., et al. (2016) ``Strong Evidence for the Density-wave Theory of Spiral Structure in Disk Galaxies,'' ApJL, 827, L2

Davis, B. L., et al. (2015) ``A Fundamental Plane of Spiral Structure in Disk Galaxies,'' ApJL, 802, L13

Davis, B. (2015) ``Logarithmic Spiral Arm Pitch Angle of Spiral Galaxies: Measurement and Relationship to

Galactic Structure and Nuclear Supermassive Black Hole Mass," PhDT

Seigar, M. S., et al. (2014) ``Constraining Dark Matter Halo Profiles and Galaxy Formation Models Using Spiral Arm Morphology. II. Dark and Stellar Mass Concentrations for 13 Nearby Face-on Galaxies," ApJ, 795, 90

Davis, B. L., et al. (2014) ``The Black Hole Mass Function Derived from Local Spiral Galaxies," ApJ, 789, 124

Berrier, J. C., et al. (2013) ``Further Evidence for a Supermassive Black Hole Mass-Pitch Angle Relation," ApJ, 769, 132

Davis, B. L., et al. (2012) ``Measurement of Galactic Logarithmic Spiral Arm Pitch Angle Using Two-dimensional Fast Fourier Transform Decomposition," ApJS, 199, 33

References:

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(*) Indicates professional reference

Additional Information:
Typing Proficiency: 67 WPM (285 CPM) with 100% accuracy

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Surface Chemistry, Golf, Tennis, Baseball, Basketball, Violin, Viola, Guitar, Bass, Piano, Ukulele, Saxophone, Singing, SCUBA Diving, Carpentry, Woodworking, Games (Card, Board, & Video), etc.
