Jessie C. Runnoe

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Personal

	United States Citizen
Languages	English, German (working)

Education

Ph.D.	Physics, 2013, University of Wyoming. *Thesis: "A multi-wavelength perspective on quasar fundamental properties"*
M.S.	Physics, 2010, University of Wyoming.
B.A.	Physics-Astronomy, 2008, Whitman College.

Professional History

2013–pres.	Post-doctoral scholar, The Pennsylvania State University
2010–2013	Research Assistant, University of Wyoming
2011–2012	Wyoming Space Grant Graduate Research Fellow, University of Wyoming
2010–2011	Wyoming Infrared Observatory Observer, University of Wyoming
2002–2003	Laboratory Technician, Berkeley Geochronology Center

Professional Memberships

AAS	American Astronomical Society, since 2011
IGC	Penn State Institute for Gravitation and the Cosmos, since 2014
CTOC	Penn State Center for Theoretical and Observational Cosmology, since 2014

Grants

SDSS Astronomer Travel Assistance Award, $1,200, 2015
WISE Travel Grant, Pennsylvania Space Grant, $1000, 2014
National Geographic Travel Grant, $2,500, 2014
Pennsylvania NASA Space Grant Travel Grant, $500, 2014
American Astronomical Society International Travel Grant, $1,000, 2012
Travel Grant, Wyoming Space Grant, $250, 2011, 2012
Graduate Research Fellowship, Wyoming Space Grant, $24k, 2011-2012
Paul Stock Grant In Aid Travel Grant, University of Wyoming College of Arts & Sciences, $300, 2011

Journal Articles

Runnoe, J., Shang, Z., Brotherton, M.., 2014, "The behavior of quasar C IV emission-line properties with orientation", MNRAS, 438, 3263

Runnoe, J., Shang, Z., Brotherton, M.., 2013, "The orientation dependence of quasar spectral energy distributions", MNRAS, 435, 3251R

Runnoe, J., Brotherton, M., Shang, Z., DiPompeo, M., 2013, "Rehabilitating CIV-based Black Hole Mass Estimates in Quasars", MNRAS, 434, 848R

Runnoe, J., Ganguly, R., Brotherton, M., DiPompeo, M., 2013, "Rest-frame Optical Properties of Radio-Selected Broad Absorption Line Quasars", MNRAS, 433, 1778R

Runnoe, J., Brotherton, M., Shang, Z., Wills, B., DiPompeo, M., 2012, "The orientation dependence of single-epoch black hole mass scaling relationships", MNRAS, 429, 135R

Runnoe, J., Brotherton, M., Shang, Z., 2012, "Updating quasar bolometric luminosity corrections. II. Infrared bolometric corrections", MNRAS, 426, 2677

Runnoe, J., Brotherton, M., Shang, Z., 2012, "Updating Quasar Bolometric Luminosity Corrections", MNRAS, 422, 478R

Rochais, T., DiPompeo, M., Myers, A., Brotherton, M., **Runnoe, J.**, Hall, S., 2014, "Radio-loud and radio-quiet BAL quasars: a detailed ultraviolet comparison", MNRAS, 444, 2498

Kobulnicky, H., Kiminki, D., Lundquist, M., Burke, J., Chapman, J., Keller, E., Lester, K., Rolen, E., Topel, E., Bhattacharjee, A., Smullen, R., Vargas lvarez, C., **Runnoe, J.**, Dale, D., Brotherton, M., 2014, "Toward Complete Statistics of Massive Binary Stars: Penultimate Results from the Cygnus OB2 Radial Velocity Survey", ApJ, 787, 73

DiPompeo, M., Myers, A., Brotherton, M., **Runnoe, J.**, Green, R., 2014, "The Intrinsic Quasar Luminosity Function: Accounting for Accretion Disk Anisotropy", ApJ, 787, 73

DiPompeo, M., **Runnoe, J.**, Myers, A., Boroson, T., 2013, "Does size matter? The Underlying Intrinsic Size Distribution of Radio Sources and Implications for Unification by Orientation", ApJ, 774, 24D

DiPompeo, M., **Runnoe, J.**, Brotherton, M., Myers, A., 2013, "An Infrared Excess Identified in Radio-loud Broad Absorption Line Quasars", ApJ, 762, 111D

Cales, S., Brotherton, M., Shang, Z., **Runnoe, J.**, DiPompeo, M., Bennert, V., Canalizo, G., Hiner, K., Stoll, R., Ganguly, R., Diamond-Stanic, A., 2013, "The Properties of Post-starburst Quasars Based on Optical Spectroscopy", ApJ, 762, 90C

DiPompeo, M., Brotherton, M., Cales, S., **Runnoe, J.**, 2012, "The rest-frame ultraviolet properties of radio-loud broad absorption line quasars", MNRAS, 427, 1135D

Kobulnicky, H., Smullen, R., Kiminki, D., **Runnoe, J.**, Wood, E., Long, G., Alexander, M., Lundquist, M., Vargas-Alvarez, C., 2012, "A Fresh Catch of Massive Binaries in the Cygnus OB2 Association", ApJ, 756, 50K

Tang, B., Shang, Z., Qiusheng, G., Brotherton, M., **Runnoe, J.**, 2012, "The Optical and Ultraviolet Emission-line Properties of Bright Quasars with Detailed Spectral Energy Distributions", ApJS, 201, 38T

Shang, Z., Brotherton, M., Wills, B., Wills, D., Cales, S., Dale, D., Green, R., **Runnoe, J.**, et al., 2011, "The Next Generation Atlas of Quasar Spectral Energy Distributions from Radio to X-Rays", ApJS, 196, 2S.

Conference Proceedings

Runnoe, J., Mathes, G., Eracleous, M., Boroson, T., Halpern, J., Sigurdsson, S., Bogdanovic, T., 2015, " The ongoing hunt for supermassive black hole binaries", AAS

Runnoe, J., Brotherton, M., Shang, Z., 2014, "Rehabilitating CIV-based Black Hole Mass Estimates in Quasars", AAS

Runnoe, J., Brotherton, M., Shang, Z., 2013, "Better Determinations of Quasar Fundamental Parameters", AAS

Runnoe, J., Brotherton, M., Shang, Z., 2012, "Updating Standard Quasar Bolometric Luminosity Corrections", AAS

Runnoe, J., Ganguly, R., Brotherton, M., Shang, Z., 2007, "Rest-frame Optical Properties of High-Redshift Radio-Selected Broad Absorption Line Quasars" AAS

Talks

5/2015 Galaxy Lunch Talk, Yale University,
"*The ongoing hunt for supermassive black hole binaries*""

3/2015 Physics Neighborhood Meeting, Penn State,
"*The ongoing hunt for supermassive black hole binaries*""

1/2015 Contributed Talk, Aspen Winter Meeting,
"*The ongoing hunt for supermassive black hole binaries*""

1/2015 Talk, AAS Winter Meeting,
"*The ongoing hunt for supermassive black hole binaries*""

10/2014 Lunch Talk, Penn State,
"*Orientation and optical spectral properties in a new sample of quasars*""

3/2014 Lunch Talk, Swift MOC,
"*The orientation dependence of quasar* C IV *emission-line properties*"

10/2013 Lunch Talk, Penn State,
"*The orientation dependence of quasar* C IV *emission-line properties*"

10/2013 Dissertation Talk, University of Wyoming,
"*A multi-wavelength perspective of quasar fundamental properties*"

4/2013	Colloqium Talk, Whitman College, "*Biases in quasar black hole mass estimates*"
3/2013	Lunch Talk, Penn State, "*Biases in quasar black hole mass estimates*"
1/2013	AAS Dissertation Talk, AAS winter meeting in Austin, TX, "*Determining quasar fundamental properties from the next generation of quasar spectral energy distribuions*"
10/2012	Colloquium Talk, University of Wyoming, "*An orientation bias in quasar black hole mass measurements*"
2/2010	Dissertation Proposal Talk, University of Wyoming, "*The next generation of quasar spectral energy distributions*"

Observing Experience

KPNO	Mayall 4m, 4 nights, spectroscopy.
KPNO	WIYN, 3 nights, IR imaging.
MDM	MDM Observatory 2.4m Hiltner, 2+ nights, spectroscopy.
MDM	MDM Observatory 1.3m, 6 nights, spectroscopy.
RBO	Wyoming 0.6 meter research telescope, 5+ nights, CCD photometry.
WIRO	Wyoming 2.3 meter research telescope, 60 nights, long-slit spectroscopy.

Teaching

Instructor	Introduction to Astronomy, 8 students, University of Wyoming, 2012
T.A.	Introduction to Astronomy, 60 students, University of Wyoming, 2009-2011
T.A.	Engineering Physics, 200 students, University of Wyoming, 2008-2010
T.A.	Physics@Night, 20 students, University of Wyoming, 2008-2010
T.A.	Astronomy, 300 students, Whitman College, 2005-2008

Number of students is approximate number taught over the duration of the listed position.

Public Outreach

Volunteer	WIRO Open House, 600 participants, University of Wyoming, 2008-2012
Judge	Wyoming State Science Fair, 500 participants, University of Wyoming, 2012
Counselor	Exxon-Mobile Bernard Harris Sumer Science Camp, 120 participants, University of Wyoming, 2010-2011
Counselor	Wyoming Astro Camp, 50 participants, University of Wyoming, 2007 & 2009
Teacher	Planetarium Shows, 100 participants, Whitman College, 2005-2008

Number of participants is approximate number over the duration of the listed position.

Other Activities

Expert Reviewer	Monthly Notices of the Royal Astronomical Society

Computer Experience

Platforms	Linux, Mac OSX, Windows
Languages	IDL, Python, IRAF, C shell, Fortran, Perl, C++, Super Mongo, LaTeX, Minitab Statistical Software, Maple, Adobe Photoshop, Microsoft Office: Excel, Powerpoint, Word.

References

Supervisor	Dr. Mike Eracleous The Pennsylvania State University 525 Davey Lab University Park, PA 16802 (814) 863-6041 mce@astro.psu.edu
PhD Advisor	Dr. Michael Brotherton Department of Physics & Astronomy University of Wyoming 1000 E. University Ave. Laramie, WY 82071 (307) 766-6101 mbrother@uwyo.edu