

JILLIAN M. BELLOVARY, PH.D

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Current Position

POSTDOCTORAL FELLOW, FISK-VANDERBILT BRIDGE PROGRAM, VANDERBILT UNIVERSITY
 September 2012 - present

Supervisor: Kelly Holley-Bockelmann

Duties: Research involving black hole growth/evolution in cosmological simulations, mentor to several Bridge students, Bridge steering committee

Previous Position

UNIVERSITY OF MICHIGAN October 2010 - August 2012

Postdoctoral Scholar

Supervisor: Marta Volonteri

Duties: Examine black hole seed formation and growth in cosmological simulations

Education

UNIVERSITY OF WASHINGTON Fall 2010

Ph.D. in Astronomy

Thesis Title: "The Formation and Evolution of Massive Black Holes in Cosmological Simulations"

Thesis Advisors: Fabio Governato & Tom Quinn

UNIVERSITY OF WISCONSIN-MADISON May 2001

B.S. in Astrophysics, Physics and Philosophy (triple major)

Honors

NSF Graduate Research Fellow, 2007-2010

Best Physics/Astronomy Oral Presentation, SACNAS 2008

Spitzer Visiting Graduate Student Fellowship, Caltech, 2007-2008

Honors in the Major – Astrophysics, UW-Madison, 2001

Graduated with Distinction, UW-Madison, 2001

Teaching Experience

ADJUNCT FACULTY, HENRY FORD COMMUNITY COLLEGE Spring 2012

Instructor of record for Introductory Astronomy class and corresponding lab.

INSTRUCTOR, U. WASHINGTON Summer 2008

Instructor of record for Introductory Astronomy class.

TEACHING ASSISTANT, U. WASHINGTON Summer 2007

Led 4 night observing runs at the UW 30" telescope for undergraduate research projects.

TEACHING ASSISTANT, U. WASHINGTON 2004 – 2005

Conducted discussion sections for introductory Astronomy and Solar System courses.

TEACHING ASSISTANT, U. WISCONSIN-MADISON Spring 2004

Conducted discussion sections and labs for an introductory physics course.

U.S. PEACE CORPS, GAMBIA COLLEGE, THE GAMBIA 2001 – 2003

Lectured physics and biology to teacher-trainees during Peace Corps service.

MARIA MITCHELL OBSERVATORY Summer 2000

Taught summer science classes for ages 8-12.

Preferred Courses:	Astronomy at all levels, Introductory and Intermediate Undergraduate Physics, Mechanics, Computational Methods	
Service & Outreach	FISK-VANDERBILT MASTERS-TO-PHD BRIDGE PROGRAM	2012 – present
	Mentor and member of the steering committee for program to increase the representation of minority Ph.Ds in STEM fields	
	PRE-MAJOR IN ASTRONOMY PROGRAM (PRE-MAP)	2005 – 2010
	Active staff member and mentor for a program to increase diversity in astronomy.	
	UW PLANETARIUM	2004 – 2010
	Presenter for public planetarium shows ~5 times per year.	
	GRADUATE AND PROFESSIONAL STUDENT SENATE	2009 – 2010
	Senator representing the graduate students of the astronomy department.	
	GRADUATE STUDENT ADVISOR	2005 – 2007
	Advisor for McNair Scholars and other underrepresented students at the U. Washington Office of Minority Affairs and Diversity.	
	MAKING CONNECTIONS MENTOR	2005 - 2007
	Mentor for female underrepresented high school students interested in science.	
Students Mentored:	<i>Undergraduate Students:</i>	
	Michael Motte (U. Washington, McNair Scholar, English Major)	
	Marrissa Harrison (U. Washington, Anthropology Major)	
	Danielle Green (U. Washington, Biology Major)	
	<i>Graduate Students:</i>	
	Sandor Van Wassenhove (U. Michigan, PhD Astronomy)	
	Bryan Demapan (Fisk U., M.A. Physics, now at Texas A&M Science Writing M.A. Program)	
	Jodie Hawk (Fisk U., now at MTSU Computational Sciences PhD program)	
	Nicole Sanchez (Fisk U., current)	
	Glenna Dunn (Vanderbilt U., current)	
Invited Talks	CCAPP SEMINAR, THE OHIO STATE UNIVERSITY	February 2015
	ASTRONOMY COLLOQUIUM, GODDARD SPACE FLIGHT CENTER	February 2015
	PHYSICS & ASTRONOMY COLLOQUIUM, UNIVERSITY OF OKLAHOMA	October 2014
	ASTRONOMY COLLOQUIUM, UNIVERSITY OF MARYLAND	September 2014
	ASTRO-GR@ATLANTA	November 2013
	STEM GIRLS KEYNOTE SPEECH, COLUMBIA STATE COMMUNITY COLLEGE	October 2013
	PHYSICS COLLOQUIUM, HOWARD UNIVERSITY	November 2011
	ASTRONOMY THEORY SEMINAR, UNIVERSITY OF MARYLAND	November 2011
	ASTRONOMY SEMINAR, MICHIGAN STATE UNIVERSITY	November 2011
	GRAVITATION AND COSMOLOGY SEMINAR, UNIVERSITY OF WISCONSIN-MILWAUKEE	November 2011

ASTRONOMY COLLOQUIUM, UNIVERSITY OF WISCONSIN-MADISON	November 2011
PHYSICS/ASTRONOMY COLLOQUIUM, UNIVERSITY OF WESTERN ONTARIO	October 2011
SINGLE AND DOUBLE BLACK HOLES IN GALAXIES, ANN ARBOR, MI	August, 2011
PHYSICS COLLOQUIUM, UNIVERSITY OF DENVER	May 2011
ASTROPHYSICS SEMINAR, FERMILAB	April 2011
TEA TALK, CALIFORNIA INSTITUTE OF TECHNOLOGY	March 2010
PHYSICS COLLOQUIUM, WESTERN WASHINGTON UNIVERSITY	May 2009

**Professional
Member-
ships**

AMERICAN ASTRONOMICAL SOCIETY
SOCIETY FOR THE ADVANCEMENT OF CHICANOS AND NATIVE AMERICANS
IN SCIENCE (SACNAS)

**Pending
Grants**

NSF AAG: DYNAMICAL TRIGGERS OF SUPERMASSIVE BLACK HOLE GROWTH (PI)
Submitted November 2014

- First Author Refereed Publications** EFFECTS OF INCLINATION ON MEASURING VELOCITY DISPERSION AND IMPLICATIONS FOR BLACK HOLES
Bellovary, J. M., Holley-Bockelmann, K., Gültekin, K., Christensen, C., Governato, F., Brooks, A., Loebman, S., Mushi, F., 2014, MNRAS, 445, 2667
- THE RELATIVE ROLE OF GALAXY MERGERS AND COSMIC FLOWS IN FEEDING BLACK HOLES
Bellovary, J. M., Brooks, A., Volonteri, M., Governato, F., Quinn, T., Wadsley, J., 2013, ApJ, 779, 136
- THE FIRST MASSIVE BLACK HOLE SEEDS AND THEIR HOSTS
Bellovary, J. M., Volonteri, M., Governato, F., Shen, S., Quinn, T., & Wadsley, J., 2011, ApJ, 742, 13
- WANDERING BLACK HOLES IN GALAXY HALOS
Bellovary, J. M., Governato, F., Quinn, T.R., Wadsley, J., Shen, S., & Volonteri, M., 2010, ApJL, 721, 148
- THE ROLE OF THE RADIAL ORBIT INSTABILITY IN DARK MATTER HALO FORMATION AND STRUCTURE
Bellovary, J. M., Dalcanton, J.J., Babul, A., Quinn, T.R., Maas, R.W., Austin, C.G., Williams, L.L.R., Barnes, E.I., 2008, ApJ, 685, 739
- SPECTROPOLARIMETRIC CLUES TO THE STRUCTURE AND EVOLUTIONARY STATUS OF MWC 349A
Meyer, J. M., Nordsieck, K.H., Hoffman, J.L., 2002, AJ, 123, 1639
- Other Refereed Publications** BLACK HOLE ACCRETION VERSUS STAR FORMATION RATE: THEORY CONFRONTS OBSERVATIONS
 Volonteri, M.; Capelo, P.; Netzer, H.; **Bellovary, J.**; Dotti, M.; Governato, F.; 2015, in prep
- GROWING BLACK HOLES AND GALAXIES: BLACK HOLE ACCRETION VERSUS STAR FORMATION RATE
 Volonteri, M.; Capelo, P.; Netzer, H.; **Bellovary, J.**; Dotti, M.; Governato, F.; 2015, accepted by MNRAS
- GROWTH AND ACTIVITY OF BLACK HOLES IN GALAXY MERGERS WITH VARYING MASS RATIOS
 Capelo, P.; Volonteri, M.; Dotti, M.; **Bellovary, J.**; Mayer, L.; & Governato, F.; 2015, MNRAS, 447, 2123
- NUCLEAR COUPS: DYNAMICS OF BLACK HOLES IN GALAXY MERGERS
 Van Wassenhove, S.; Capelo, P.; Volonteri, M.; Dotti, M.; **Bellovary, J.**; Mayer, L.; & Governato, F.; 2013, MNRAS, 439, 474
- BLACK HOLES IN THE EARLY UNIVERSE
 Volonteri, M., & **Bellovary, J.**, 2012, Reports on Progress in Physics, 75, 124901
- MILKY WAY TOMOGRAPHY IV: DISSECTING DUST
 Berry, M., Ivezić, Ž., Sesar, B., Jurić, M., Schlafly, E., **Bellovary, J.**, et al.; 2012, ApJ, 757, 166
- OBSERVABILITY OF DUAL AGN IN MERGING GALAXIES
 Van Wassenhove, S.; Volonteri, M., Mayer, L., Dotti, M., **Bellovary, J.**, & Callegari, S.; 2012, ApJL, 748, 7
- SMBH FORMATION VIA GAS ACCRETION IN NUCLEAR STELLAR CLUSTERS
 Davies, M. B.; Miller, M. C.; & **Bellovary, J.M.**; 2011, ApJL, 740, 42

GROWING MASSIVE BLACK HOLE PAIRS IN MINOR MERGERS OF DISK GALAXIES
Callegari, S.; Kazantzidis, S.; Mayer, L.; Colpi, M.; **Bellovary, J. M.**; Quinn, T.; Wadsley, J., 2011, *ApJ*, 729, 85

STAR FORMATION AND FEEDBACK IN SPH SIMULATIONS II: RESOLUTION EFFECTS
Christensen, C., Quinn, T., Stinson, G., **Bellovary, J.**, Wadsley, J., 2010, *ApJ*, 717, 121

THE NATURE OF HI ABSORBERS IN GRB AFTERGLOWS: CLUES FROM HYDRODYNAMIC SIMULATIONS
Pontzen, A., Deason, A., Governato, F., Pettini, M., Wadsley, J., Quinn, T., Brooks, A., **Bellovary, J.**, & Fynbo, J. , 2010, *MNRAS*, 402, 1523

A LARGE, UNIFORM SAMPLE OF X-RAY-EMITTING ACTIVE GALACTIC NUCLEI FROM THE ROSAT ALL SKY AND SLOAN DIGITAL SKY SURVEYS: THE DATA RELEASE 5 SAMPLE
Anderson, S. F., Margon, B., Voges, W., Plotkin, R. M., Syphers, D., Haggard, D. Collinge, M.J., **Meyer, J.M.**, Strauss, M.A., Agüeros, M. A., et al. 2007, *AJ*, 133, 313

**Unrefereed
Conference
Proceedings
& Abstracts**

POSTER: HOW GALAXY ORIENTATION AFFECTS MEASUREMENTS OF BULGE VELOCITY DISPERSION AND THE CONSEQUENCES FOR THE M-SIGMA RELATION
Bellovary, J.M., Holley-Bockelmann, K., Christensen, C., Brooks, A., Governato, F., 2014, *AAS Meeting 223*, 453.04

ORAL: THE FORMATION AND EVOLUTION OF MASSIVE BLACK HOLES IN COSMOLOGICAL SIMULATIONS
Bellovary, J.M., Governato, F., Quinn, T., Volonteri, M., 2011, *AAS Meeting 217*, 128.01

PROCEEDING: FOSSIL SMBHS IN THE MILKY WAY HALO
Bellovary, J.M., Governato, F., & Quinn, T.R., 2010, *IAUS*, 267, 196

PROCEEDING: THE DISTRIBUTION OF BLACK HOLES IN GALAXY HALOS
Bellovary, J.M., 2009, *The Monster's Fiery Breath: Feedback in Galaxies, Groups, and Clusters*

POSTER: DUST EMISSION AND RADIO LOUDNESS IN PG QUASARS
Meyer, J.M., Ogle, P.M., Antonucci, R., Leipski, C., Whysong, D. , 2008, *AAS Meeting 211*, 45.09

PROCEEDING: THE ROLE OF THE RADIAL ORBIT INSTABILITY IN DARK MATTER HALO FORMATION AND STRUCTURE
Meyer, J.M., Dalcanton, J. J., Austin, C. G., Barnes, E. I., Williams, L. R., Babul, A. 2007, *IAUS*, 235, 124

POSTER: DISSECTING THE MILKY WAY WITH SDSS III: THE PROPERTIES OF INTERSTELLAR DUST
Meyer, J.M., et al. 2005, *AAS Meeting 207*, 131.01

ORAL: OPTICAL SPECTROPOLARIMETRY OF MWC349
Meyer, J.M., Nordsieck, K.H., and Strelitski, V. 2000, *AAS Meeting 197*, 91.03

References PROFESSOR KELLY HOLLEY-BOCKELMANN
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