

PROMOTION RECOMMENDATION  
THE UNIVERSITY OF MICHIGAN  
COLLEGE OF LITERATURE, SCIENCE, AND THE ARTS

Approved by the  
Regents  
May 21, 2015

Eric F. Bell, associate professor of astronomy, with tenure, College of Literature, Science, and the Arts, is recommended for promotion to professor of astronomy, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D. 1999 University of Durham  
B.S. 1996 University of Glasgow

Professional Record:

2009 – present Associate Professor, Department of Astronomy, University of Michigan  
2002 – 2009 Scientific Staff Member, Max Planck Institute for Astrophysics, Germany  
1999 – 2002 Post-doctoral Research Associate, University of Arizona

Summary of Evaluation:

Teaching – Professor Bell is an exceptional and innovative teacher on all levels. He is a strong proponent of and a leader in using active learning techniques with the aim of improving student learning outcomes. He is broadly conversant with the current educational methodologies in higher education and has been very selective in using only those he considers most effective. Professor Bell has received several teaching development awards; the most recent is a large program that was funded by the president's and provost's Third Century Initiative. In addition to applying these active learning techniques to his classes, Professor Bell shares his knowledge with the department through regular (and well-attended) curriculum-pedagogy meetings. Much of his focus has been in two popular 100-level classes ("From the Big Bang to the Milky Way" and "Aliens"), which he and another professor developed, but he has been equally zealous about teaching the graduate level course ("Structure and Content of Galaxies"), where students responded enthusiastically to his interactive teaching style.

Research – Professor Bell is a leader in research that focuses on galaxy properties and their evolution. The most prominent structures in our universe are galaxies, such as our own Milky Way, and a major astrophysical challenge is reaching an understanding of how these galaxies grew and evolved over cosmic time. Professor Bell has planned and carried out many observational projects that establish fundamental properties of galaxies. His work has received enormous acclaim and he is one of the most highly-cited researchers in the entire field of astronomy and astrophysics. Professor Bell has been first-author on an extraordinary number of important articles. He has received consistent funding from the Hubble Space Telescope and has a large award from the National Science Foundation.

Recent and Significant Publications:

"Charting the evolution of the ages and metallicities of massive galaxies since  $z = 0.7$ ," with A. Gallazzi, A., et al., *The Astrophysical Journal*, 788, 2014, p. 22.  
"Structural parameters of galaxies in CANDELS," with A. van der Wel, A., et al., *The Astrophysical Journal*, 203, 2012, p. 24.

“What turns galaxies off? The different morphologies of star-forming and quiescent galaxies since  $z \sim 2$  from CANDELS,” with A. van der Wal, et al., *The Astrophysical Journal*, 753, 2012, p. 167.

“The merger-driven evolution of massive galaxies,” with A. R. Robaina, et al., *The Astrophysical Journal*, 719, 2010, p. 844.

Service – Professor Bell has been involved in a wide range of service activities, both within the University and on the national-international stage. He has not only carried out the usual range of departmental and university tasks with enthusiasm (hiring and promotion committees; telescope time allocation committee; curriculum committee; graduate admissions committee, etc.), he is self-driven to target areas for improvement – then he jumping right in with constant effectiveness. The most notable example has been as the co-developer of the Michigan Institute for Research in Astrophysics (MIRA); he currently serves as its first director. MIRA brings together faculty from two colleges and several departments to attack leading issues in astronomy and astrophysics. Professor Bell has also been a strong advocate for the promotion of diversity and he has been an active recruiter to that end.

External Reviewers:

Reviewer (A)

“‘Immense’ is the best description of Eric’s visibility in the field. At conferences, everyone is very keen to hear what Eric has to say. People are not disappointed – Eric is very good at delivering punchy, to the point, summaries of the big issues.”

Reviewer (B)

“...[Professor Bell] is a bright and enthusiastic researcher full of ideas and willing to engage in large long term projects. His contributions to his field of research are very relevant, fundamental, and long lasting.”

Reviewer (C)

“...Eric is an outstanding, meticulous, creative and inspiring astronomer who has reached international leadership in his field.”

Reviewer (D)

“Eric Bell is one of the most outstanding galaxy researchers in his generation. ...he has many home runs to his credit.”

Reviewer (E)

“Bell is very well known both nationally and internationally. ... He is always prominent in discussions and I find his comments to be insightful and constructive. ...I see him as one of a small nucleus of researchers who are driving the subject forward at the national and international level.”

Reviewer (F)

“A special feature of Bell’s work, demonstrating his scientific innovation, is his persistence in going beyond the under-imaginative ‘we agree with the standard model’ mediocrity... Bell’s research in this subject is consistently original, substantial, innovative, and influential...”

Reviewer (G)

"...Dr. Bell is a brilliant scientist: sharp and knowledgeable, interesting and ambitious, yet also friendly and charismatic."

Reviewer (H)

"Throughout his career, Eric has been a scientist of inspiration and ideas who leads his field rather than follows."

Reviewer (I)

"Unlike many academics who build that reputation largely around one or two specific discoveries or papers, Bell's impact has been built on a steadily growing and maturing body of research in several subjects."

Summary of Recommendation:

Professor Bell is a world leader in understanding the structure and evolution of galaxies, where he uses a wide range of ground and space-based telescopes for his observational studies. His efforts in teaching and service benefit students, post-doctoral associates, and fellow faculty members. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Associate Professor Eric F. Bell be promoted to the rank of professor of astronomy, with tenure, College of Literature, Science, and the Arts.



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Andrew D. Martin  
Dean, and Professor of Political Science  
College of Literature, Science, and the Arts

May 2015