Approved by the Regents
May 16, 2013

PROMOTION RECOMMENDATION
The University of Michigan
College of Literature, Science, and the Arts

Marion S. Oey, 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.	1995	University of Arizona
A.B.	1989	Bryn Mawr College

Professional Record:

2009 – present	Associate Professor, Department of Astronomy, University of Michigan
2004 – 2009	Assistant Professor, Department of Astronomy, University of Michigan
2004	Associate Astronomer, Lowell Observatory
2001 – 2004	Assistant Astronomer, Lowell Observatory
1998 – 2001	Institute Fellow, Space Telescope Science Institute
1995 – 1998	Post-doctoral Research Fellow, Institute of Astronomy, University of Cambridge

Summary of Evaluation:

Teaching – Professor Oey has a genuine enthusiasm for undergraduate education for non-majors and for majors and minors. She fostered and successfully implemented a number of class initiatives to bring astronomy to the undergraduate student population and to the community in general. Professor Oey has also developed and will be offering a new 400 level class using the research telescopes on Kitt Peak in Arizona. This gives the undergraduates an opportunity to work with professional equipment. She has also successfully led a number of undergraduate and graduate students into successful careers.

Research – Professor Oey's scholarship involves the stars and gas in nearby galaxies, including the Milky Way and the next closest galaxies, the Large and Small Magellanic Clouds. A major theme of her work is the formation of the most massive stars and the role that they play in shaping their environment. Her work has attracted considerable attention and it is well-funded by the national agencies, notably the National Science Foundation and National Aeronautics and Space Administration (Hubble Space Telescope). She is frequently invited to give colloquia at universities and plenary talks at major conferences. Her research group is effective and includes undergraduates, graduate students, as well as postdoctoral research associates.

Recent and Significant Publications:

"Discovery of new, dust-poor B[e] supergiants in the small Magellanic Cloud," with A. S. Graus and J. B. Lamb, *The Astrophysical Journal*, 759(10), 2012.

"On the origin of the Salpeter Slope for the initial mass function," *The Astrophysical Journal Letters*, 739, 2011, p/ L46.

"The sparsest clusters with O stars," with J. B. Lamb, et al., *The Astrophysical Journal*, 725, 2010, p. 1886.

"The first chemical abundance analysis of K giants in the inner galactic disc," with T. Bensby, et al., *Astronomy and Astrophysics*, 516, 2010, p. L13.

Service – Professor Oey is engaged with astronomy management and leadership activities nationally, and she is on the governing body of *AURA*, which runs the national ground-based optical observatories and the Hubble Space Telescope. Within her department and the university she is valued for her contributions to important committees.

External Reviewers:
Reviewer (A)
"Sally's multi-year-long study of the ionizing photon escape from star forming regions is a clear example of how carefully and creatively she follows a thread and makes a mark in a field. Beginning with a paper on the size distribution of superbubbles around OB stars …[in] 1997…Sally's investigations in this difficult field have recently culminated with two very important break-through papers…[in] 2011."

Reviewer (B)
"Sally has done creative (theoretical) work on subjects such as explaining the initial mass function, luminosity function of HII regions, and size distribution of interstellar shells. …it is evident that Sally is very creative and can put ideas together and make them flow. …[her] scholarly visibility at national or international level[s] is high, fully on a par with full professors."

Reviewer (C)
"…Sally is in a period of her career when the painstaking survey work that her team have conducted in recent years will be bearing very interesting fruit; clearly, this is a sense that is shared by those allocating telescope time and grant monies since she has been successful in both respects. I…have not discussed other aspects of her portfolio of which you're doubtless aware: her scientific versatility and breadth, her excellent communication skills and her passionate commitment to outreach and education."

Reviewer (D)
"…Dr. Oey is well respected nationally and well integrated into university and community life. She is a distinguished member of your faculty. …[her] observations are thorough, her analytic theory useful and direct, and her results important to the research of many others, including myself."

Reviewer (E)
"…Sally is an outstanding scientist who is making major contributions in at least four areas in astrophysics. Her papers present a compelling combination of theoretical and observational work, and they show a remarkable ability to identify research opportunities using a wide range of techniques. She has clearly inspired a talented group of post-doctoral fellows and students at the University of Michigan, and she is involving them in exciting and innovative research programs. She richly merits promotion to the rank of professor…"

Reviewer (F)
"The common attributes that emerge from this work are a keen eye for problems and observational experiments with relevance to the 'big picture' problems in astrophysics, a broad astrophysical grounding and a fearlessness to take on a new subject, and an ability to bring together observations with straightforward modelling to more deeply illuminate a vexing problem."

Reviewer (G)
"I see Dr. Oey as a high-profile and internationally visible researcher whom I value as a colleague. Dr. Oey's presentations at the meetings I witnessed have been above average such that Dr. Oey portrays the achieved results clearly and at a high level of didactic quality. The research contributions of Dr. Oey have had an important impact on the current understanding of star formation and gas processes in galaxies."

Summary of Recommendation:
Professor Oey is an excellent scholar who has made important contributions to her field. She has developed new classes and implemented a new Astronomy major and minor that will appeal to a larger sector of the undergraduate body. She has been an effective mentor to students at all levels. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Associate Professor Marion S. Oey be promoted to the rank of professor of astronomy, with tenure, College of Literature, Science, and the Arts.

Terrence J. McDonald
Arthur F. Thurnau Professor,
Professor of History and Dean
College of Literature, Science, and the Arts

May 2013