

You are welcome to nominate speakers to colloquium@nao.cas.cn. The video and slides of previous colloquia and more information can be found at <http://colloquium.bao.ac.cn/>.

国台学术报告 NAOC COLLOQUIUM

2017年 第9次 / No. 9 2017

Time: Wednesday 2:30 PM, Apr.5th **Location: A601 NAOC**

Weighing our Dark Halo

Prof. James Binney

University of Oxford, UK

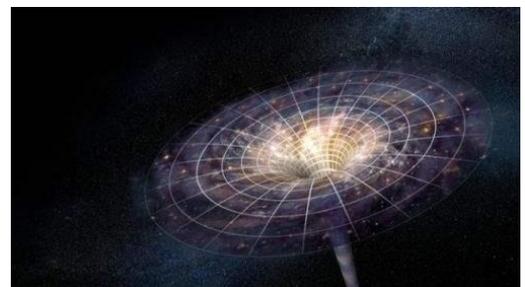


Prof. James Binney has a BA from Cambridge University and a DPhil degree from Oxford University. During 1971/2 he studied at the Albert Ludwigs Universitaet, Freiburg i. Breisgau. From 1975--1979 he was a Fellow by Examination of Magdalen College, Oxford, and he spent the years 1975/6 and 1979-1980 in Princeton University before joining the Oxford Physics Faculty in 1981. Since July 1996 he has been professor of Physics at Oxford University, where he is a Professorial Fellow of Merton College. From 2010 – 2015 he was the head of Oxford's Rudolf Peierls Centre for Theoretical Physics. In 2000 he was elected a Fellow of the Royal Society of London and a Fellow of the Institute of Physics. He was awarded 1986 Maxwell Prize and Medal and the 2010 Dirac Medal by the Institute of Physics, London. He received the 2003 Dirk Brouwer Award of the American Astronomical Society and the 2013 Eddington Medal of the Royal Astronomical Society, the 2013 Medaille de l'Institut d'Astrophysique de Paris and the 2015 Occhialini Medal from the Italian Physical Society. During 1994--7 he was President of both Commission 33 and Division VII of the International Astronomical Union and he has served on the Organizing Committee of Commission 28 of the IAU.

Abstract

A dark halo is supposed to contain ~95% of the mass of our Galaxy. Since the dark halo contributes so largely to the Galaxy's gravitational field and it's impossible to understand the distribution and velocities of stars without knowledge of the Galactic gravitational field, mapping the dark halo is a central task for a Galaxy modeller. I'll explain how data from

the SDSS and RAVE surveys has been used to constrain tightly the distribution of dark and stellar mass interior to the Sun's orbit, and argue that scattering of dark-matter particles by baryons has significantly modified the dark-matter distribution in the inner kpc. This work relies heavily on new methods in galaxy dynamics which promise also to revolutionise studies of external galaxies.



All are welcome! Tea, coffee, biscuits will be served at 2:15 PM.