



北京大学



General Physics Colloquium A Perspective on US Fusion Research

Time: 4:00 pm, Mar. 27, 2012 (Tuesday)

Venue: Conference Room A (607),
Science Building 5

Speaker: Prof. R. D. Hazeltine (University of Texas at Austin)



About the Speaker

Richard Hazeltine is a graduate of Harvard College (A.B., 1964) and the University of Michigan (Ph.D., 1968). He spent two years at the Institute for Advanced Study in Princeton before joining the University of Texas in 1971. In 1980 he helped establish the Institute for Fusion Studies at Texas, and served for eleven years, beginning in 1991, as Institute Director. Hazeltine was appointed Chair of the Physics Department at The University in 2009.

As a theoretical plasma physicist, Hazeltine has worked in transport theory, plasma stability theory and nonlinear fluid modeling. His scientific interests extend from plasma confinement to such topics as nonlinear dynamics and astrophysics. He is co-author of the books *Plasma Confinement* (with J. D. Meiss, 1992) and *The Framework of Plasma Physics* (with F. L. Waelbroeck, 1999). He has published about 140 papers on plasma physics and related topics.

Hazeltine was a Councilor of the American Physical Society, Chair of the Division of Plasma Physics, Chair of the Fusion Energy Sciences Advisory Committee for DOE and a member of the Board on Physics and Astronomy of the National Research Council. Previously on the editorial boards of *Physical Review* and *The Physics of Fluids*, Hazeltine served some 8 years as an Associate Editor of *Reviews of Modern Physics*. He is a Fellow of the APS and of the AAAS.

Abstract

This review of the US fusion research program has two parts. The first part surveys the plasma and fusion research topics that are at the center of the present US program. The second part discusses in more detail to specific topics---the fusion-fission hybrid and the possibility of thermal equilibrium confinement---in more detail. The review assumes very little prior knowledge of plasma physics or fusion research.

Organizers:

School of Physics, PKU

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