

Lectures on Ultracold Quantum Gases

Part 2: Degenerate Fermi Gases

Prof. G. Shlyapnikov

Universite Paris-Sud XI, France

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下午3:00-4:45

频标楼4楼报告厅

About the speaker:

Prof. G. Shlyapnikov is the Director of Research at CNRS, LPTMS, Orsay, France, and Professor in Univ. Of Amsterdam. He is Co-editor of EPL and Associate Editor of Advances in Physics. His work on the theory of quantum fluids/gases was awarded by the Humboldt Prize (Germany) in 1999, the Kurchatov Prize (Russia) in 2000, and the International Bose-Einstein Condensation Prize in 2011. He has published about 130 papers with more than 8300 citations and H-index of 43.



Abstract:

This is the second part of our lecturing course on ultracold quantum gases. It discusses ultracold degenerate gases of fermionic atoms and is focused on the role of interactions and on superfluidity. After creating quantum degenerate atomic Fermi gases, experiments have reached the so-called strongly interacting regime bringing analogies with neutron stars and high temperature superconductivity. Therefore, aside from an Introduction to the theory of degenerate fermions, the lecturing course includes several modern developments in this domain.

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