

The 2017 Fritz London Memorial Prize Winners

James Avery Sauls, (Northwestern University, USA)

<http://eolus.phys.northwestern.edu>



Citation:

“The Fritz London Memorial Prize is awarded to James Avery Sauls in recognition of his pioneering work on the influence of disorder on the superfluidity of Helium 3.”

James Avery Sauls is Professor of Physics at Northwestern University. He received his BSc in Engineering Physics at Colorado School of Mines in Golden (1975), then moved to New York to do graduate work at the State University of New York at Stony Brook, where he received a Ph.D. in physics in 1980, working with Gerald E. Brown and Joseph W. Serene. After Stony Brook, he held research appointments at Princeton University in New Jersey (1980-83) with Philip W. Anderson, the Nordic Institute for Theoretical and Atomic Physics (NORDITA) in Copenhagen and Helsinki University of Technology (now Aalto University) (1983-84). Sauls was appointed to the faculty of Princeton University in 1983 where he continued research in nuclear matter, low temperature physics

and began studies of disordered systems and exotic superconducting states. In 1987, Sauls accepted his current appointment to the faculty of Northwestern University.

He has also held appointments as Visiting Director of Research at the CNRS and Visiting Professor, Joseph Fourier University, Grenoble, France, (2003), and Visiting Professor, Nordic Institute for Theoretical Physics (Nordita) and University of Copenhagen, Denmark (1992 – 1993).

Sauls has made contributions to our understanding of spontaneous symmetry-breaking phase transitions, topological defects and collective behavior of nuclear matter in the interior of neutron stars, superconductors with complex broken symmetry phases, and quantum fluids, particularly the superfluid phases of ^3He - the light isotope of Helium. In 1994 Sauls received the Max Planck Research Prize in Theoretical Physics with Dierk Rainer at Bayreuth University from the Max Planck and Alexander von Humboldt Societies for contributions to the theory of superconductivity in strongly correlated electronic materials, and in 2012 Sauls shared the John Bardeen Prize awarded by the University of Illinois at Urbana-Champaign for his work on the broken symmetry states in heavy electron superconductors.