

The 2011 Fritz London Memorial Prize Winners

Hans Mooij (Delft University of Technology, Netherlands)
www.tnw.tudelft.nl/.../hans-mooij/



Citation:

"The Fritz London Memorial Prize is awarded to Johan E. Mooij in recognition for his experimental contributions to the understanding of nonequilibrium superconductivity, the properties of superconducting films and junction arrays, Josephson flux qubits, and electron quantum transport in these systems."

Hans Mooij is emeritus professor of nanoscience and university professor at Delft University of Technology. He obtained his PhD in 1970 in Delft with far-infrared spectroscopy of anharmonic lattice vibrations. After a short period as process engineer with Shell

Petroleum Company he returned to Delft University to start research on electronic transport in micro/nanofabricated metallic structures, mostly in the superconducting state. Microbridges, critical current enhancement by microwave excitation, Berezinskii/Kosterlitz-Thouless transition in superconducting thin films, single electron and single Cooper pair transport, phase transitions and quantum vortices in Josephson junction arrays are among the subjects that he was active in. In the last ten years he focused on quantum information processing with superconducting flux qubits. Hans Mooij is the first director of the Kavli Institute of Nanoscience Delft. He spent sabbatical periods at Stanford, MIT and NTT Basic Research Laboratories (Japan) and was Loeb lecturer at Harvard. He is a Fellow of the American Physical Society, member of the Royal Netherlands Academy of Sciences, honorary doctor of Trondheim University and honorary member of the Royal Netherlands Institute of Engineers. He was recently appointed as a distinguished professor at the Center for Functional Nanostructures in Karlsruhe. He received the Physica Prize, the Royal/Shell Oeuvre Prize and the Agilent Technologies Europhysics Prize.