

Olli Lounasmaa — the first laureate of the P L Kapitza Gold Medal



Olli Lounasmaa and Petr Leonidovich Kapitza at the Institute of Physical Problems on 27 March 1974.

Russian Academy of Sciences Presidium

Resolution

20 September 1994; No. 158; Moscow

Award of the P L Kapitza Gold Medal for 1994 (proposed by the Commission of Experts and the Division of General Physics and Astronomy).

Presidium of the Russian Academy of Sciences **resolves:** to award the P L Kapitza Gold Medal for 1994 to Professor Olli Lounasmaa (Technical University, Helsinki, Finland) for his major achievements in low-temperature physics.

Academician Yu S Osipov, President, Russian Academy of Sciences.

Academician I M Makarov, Chief Scientific Secretary, Russian Academy of Sciences.

Professor Olli Lounasmaa (of Finland) is an outstanding physicist working in the field of low-temperature physics.

The most important scientific achievements of Professor O Lounasmaa are:

(1) the first measurements of the viscosity of liquid ^3He at ultralow temperatures, providing a direct experimental proof of superfluidity of this liquid;

(2) construction of a unique rotating cryostat for ultralow temperatures and fundamental research on quantum vortices in anisotropic superfluid liquids $^3\text{He-A}$ and $^3\text{He-B}$;

(3) discovery of the magnetic ordering of nuclear spins in metals in the nanokelvin range of temperatures and studies of magnetic structures of nuclear magnetic materials;

(4) development of unique apparatus and methods for the study of weak magnetic fields of the human heart and brain.

Professor O Lounasmaa is the founder and, since its foundation, head of the Laboratory of Low Temperatures of the Technical University in Helsinki, the initiator of close cooperation with Russian physicists and the creator of the joint Russian (Soviet)–Finnish ROTA project, in which the following establishments are participating: the P L Kapitza Institute of Physical Problems of the Russian Academy of Sciences, the L D Landau Institute of Theoretical Physics of the Russian Academy of Sciences, and the Institute of Physics of the Georgian Academy of Sciences. This cooperation began many years ago as a result of combined efforts of Professor O Lounasmaa and P L Kapitza, and is still continuing.

The Editorial Board of *Uspekhi Fizicheskikh Nauk* congratulates the first laureate of the P L Kapitza Gold Medal and wishes Olli Lounasmaa further successes in his fruitful scientific work.