



Special Issue: 50 Years of the Journal of Low Temperature Physics

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The Journal of Low Temperature Physics celebrates its Jubilee anniversary in 2019. The Journal was established by John Daunt (Stevens Institute of Technology, New Jersey) in 1969 with Plenum Press (New York) as the publisher. At its inception, the Journal published only regular articles in all areas of low temperature physics; notably quantum fluids and solids, superconductivity and the thermal properties of matter. An advisory board was formed for steering the journal and occasional refereeing. On John Daunt's retirement in 1975, John Harrison was appointed editor, a position he held until 1992 when Horst Meyer became the Editor.

With the growth of the Journal in the 1990s, Horst requested that a European Editor, Frank Pobell (Bayreuth) be appointed. Frank handled both European and Asian submissions. In 1992 JLTP started publishing the Proceedings of the International Symposium of Quantum Fluids and Solids (QFS) and started publishing special issues on timely subjects, including liquid helium-3, supersolidity, quantum turbulence, and eventually other conference proceedings such as the Low Temperature Detector Series.

In 1999 Kluwer took over the publication of the Journal, and in 2002 Neil Sullivan (University of Florida) became the editor for the Americas and Far Asia (including China and Japan). Another change occurred in 2005 with Springer becoming the publisher, and Mikko Paalanen (Helsinki) became the editor for submissions from Europe, Africa and the Near East as well as India and Pakistan. Jukka Pekola (Aalto University) succeeded Mikko in 2010. In 2012 Horst Meyer fully retired and Paul Leiderer (University of Konstanz) joined the Editorial Team with the responsibility of overseeing final production of publications and the various special series.

Today the Journal publishes more than 160 research publications annually (including rapid communications and technical reports) on a broad range of low

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temperature physics topics covering quantum gases, fluids and solids, superfluidity, superconductivity (including non-conventional), quantum electronics, quantum phase transitions, topological physics, and thermal properties of matter (conductivity, transport, heat capacity, etc.) at low temperatures. The Journal also published 2–3 special issues each year (such as QFS proceedings) and 4–5 review papers.

The Journal has grown steadily with a broadening scope in recent years and welcomes articles in developing areas such as topological matter, quantum electronics and applications to quantum information, low temperature applications to astrophysics and new technical breakthroughs.

The Jubilee issue will be published in two parts. Part I which will appear in the fall of 2019 includes 10 articles on current topics in quantum fluids and solids: transport, quantum turbulence, metastability, mass flux, plastic deformation and electrons on helium; and modern materials topics: topological phenomena, unconventional superconductivity, magneto-optics and studies of skyrmions. Tentative topics of Part II, to appear in 2020, will include reviews on thin quantum films, noise in carbon nanotubes, bubbles in liquid helium, non-equilibrium phenomena, noise thermometry, Dirac materials, heavy fermions, spin liquids, quantum Hall states and non-conventional Josephson effects.