### **CURRICULUM VITAE**

Name: Jon Magne LEINAAS

Time and place of birth: 11 October 1946, Oslo, Norway.

Nationality: Norwegian Civil status: Married

Address: Department of Physics, University of Oslo, P.O.Box 1048 Blindern, 0316 Oslo,

Norway

**Telephone:** +47 22 85 50 29 (office), +47 67 54 13 63 (home)

Telefax: +47 22 85 64 22 E-mail: j.m.leinaas@fys.uio.no

Title: Professor

#### **Education:**

Institution Qualifications obtained Year
University of Oslo Cand. real. 1970
University of Oslo Dr. philos. 1980

### Fellowships and Positions:

1972-78 Research Fellowship, Department of Physics, University of Oslo

1975-76 Visiting scientist (NATO Science scholarship), State University of New York at Stony Brook

1978-80 NORDITA Fellowship, Nordic Institute for Theoretical Physics, Copenhagen

1981-82 CERN Fellowship, Theory Division, CERN, Geneva

1983 Associate professor (temporary position), Department of Physics, University of Oslo

1984-89 Associate professor, Stavanger University College, Stavanger, Norway

1989- Professor of Theoretical Physics, Institute of Physics, University of Oslo

2002-03 Visiting Miller Professor and Visiting Fulbright Scholar, University of California, Berkeley.

# Physics awards:

Norsk Data's physics prize in particle physics 1983 (The Norwegian Physical Society).

IBMs physics prize in condensed matter physics 1991 (The Norwegian Physical Society). Shared with Jan Myrheim.

Fridtjof Nansens Award 1993 (The Norwegian Academy of Science and Letters). Shared with Jan Myrheim.

Member of the Norwegian Academy of Science and Letters.

Member of the Royal Swedish Academy of Sciences.

#### Fields of research

Quantum physics and quantum field theory, with applications to particle physics and condensed matter systems. Of particular interest: Quantum physics of low-dimensional systems, fractional statistics and exotic quantum states. Quantum fields in accelerated coordinate systems, Unruh effect. Geometric approach to Quantum entanglement.

# Recent publications

Superluminal group velocity in a birefingent crystal, Phys. Rev. A 77, 023808 (2008), with T. Halvorsen.

Sharp fractional charges in Luttinger liquids, Phys. Rev. B 80, 115327 (2009), with Mats Horsdal and T.H. Hansson.

Anyons, Contribution in Compendium of Quantum Physics; Concepts, Experiments, History and Philosophy, Eds. Daniel Greenberger, Klaus Hentschel and Friedel Weinert, Springer-Verlag 2009.

Fractional charge (and statistics) in Luttinger liquids, in Trends in Nanophysics; Theory, Experiment and Technology, Alexandru Aldea and Victor Barsan (Eds.), Springer Heidelberg, Dordrecht, London, New York (2010),

Numerical studies of entangled PPT states in composite quantum systems, Phys. Rev. A 81, 062329 2010, with Jan Myrheim and Per Øyvind Sollid.

Low-rank extremal positive-partial-transpose states and unextendible product bases, Phys. Rev. A 81, 062330, 2010, with Jan Myrheim and Per Øyvind Sollid.

Charge Fractionalization on Quantum Hall Edges, Phys. Rev. B 84, 115313 (2011), with M. Horsdal, M. Rypestol and T.H. Hansson.

Unextendible product bases and extremal density matrices with positive partial transpose, Phys. Rev. A 84, 042325 (2011), with Jan Myrheim and Per Øyvind Sollid.