Curriculum Vitae of Leonardo Ricci

FORMATION AND EMPLOYMENTS

In 1990 he received the Laurea degree in Physics from the University of Pisa and the Diploma from the Scuola Normale Superiore, Pisa, discussing a thesis, under the supervision of M. Inguscio, about High-Resolution Infrared Spectroscopy of Osmium Tetroxide.

In 1990 he joined T. W. Hänsch's group in Munich working on an experiment aiming to the realization of a permanent magnetic trap for neutral alkalis.

In 1994 he received the Ph. D. degree (magna cum laude) from the Ludwig-Maximilian Universität in Munich, discussing a thesis ("Eine magnetische Falle für die hochauflösende Spektroskopie", i.e. "A Magnetic Trap for High-Resolution Spectroscopy") under the supervision of T. W. Hänsch.

In 1995 he joined the University of Trento where, since september 1996, he is working as a Research Assistant (Ricercatore Universitario).

RESEARCH ACTIVITY

The research activity of Leonardo Ricci is carried out in the Atomic and Molecular Physics Laboratory of the Physics Department and is devoted to the fields of cold atoms (in particular the development of confinement systems for neutral atoms), high-resolution laser spectroscopy and, last but not least, the development of advanced measurement, processing and control systems (hardware and software) for applications in the Experimental Research; a main point regarding this last research line is the measurement and control of magnetic fields.

Since the beginning of 2005, pursuing a not-new interest, he is engaged in neuroscience topics; in particular, the role of noise in brain function (perception and cognition). Within this last research framework, he has carried out studies on stochastic resonance phenomena in human perception. His research activity is now devoted to unsolved, physical issues of the Signal Detection Theory, SDT, like the criterion setting dynamics.

He is also actively interested in the History of Physics.

EDITORIAL ACTIVITY

(Since 1992) Reviewer for:
Applied Physics B - Lasers and Optics;
The European Physical Journal D - Atomic, Molecular, Optical and Plasma Physics;
IEEE Sensors Journal;
Biological Theory (Springer).

TEACHING ACTIVITY

Main topics of L.R.'s teaching activities, covering a period of 15 years, are laboratory courses on Electronics and Advanced Electronics (for example, for students of the

"Laurea Specialistica e Magistrale" in Physics) and on Classical Physics (for example, for undergraduate Biomolecular Sciences and Technology students).

During the years 2006-2007, he was coordinator and teacher for the class of Electronics at the "Scuola di Specializzazione all'Insegnamento Secondario", SSIS, of the University of Trento.

During six years (2000-2005), he taught the course on Quantum Optics for graduate (Ph.D.) students in Physics, and, in 2002, the course on Electricity and Magnetism for undergraduate Telecommunication Engineering students.

He acted and is presently acting as a supervisor for 4 Ph.D. thesis and 22 "Laurea thesis" works.