

Contact:

IQST
Management
Office
iqst@iqst.org
www.iqst.org



Prof. Dr. Wolfgang Ketterle,
Massachusetts Institute of Technology, November 2003
"Quantenmaterie aus eiskalten Atomen"

Prof. Dr. Claude Cohen-Tannoudji,
Collège de France, January 2005
"Lamb-shifts and light-shifts"

Prof. Dr. Theodor W. Hänsch,
Ludwig-Maximilians-Universität München,
Max-Planck-Institut für Quantenoptik,
Garching, February 2006
"Eine Leidenschaft für Präzision"

Prof. Dr. Roy Glauber,
Cambridge University, December 2007
"One hundred years of light quanta"

Prof. William D. Phillips,
National Institute of Standards and Technology,
Gaithersburg, December 2008
*"A Bose condensate in an optical lattice:
cold atomic gases as solid state systems"*

Previous Lamb Lectures



Lamb Lecture

**Spotting the elusive Majorana
under the microscope**

Prof. Ali Yazdani, Princeton University

February 14th, 2017 | 5:15 pm
MPI For Solid State Research, Stuttgart
Werner-Köster-Hörsaal 2R4



Introduction

The Lamb Lectures bear the name of Willis Eugene Lamb (1913 – 2008) who received the Nobel Prize in 1955 for his discovery of the energy shift in hydrogen. Lamb was a frequent guest in the Institute of Quantum Physics at Ulm University led by Prof. W. Schleich and held an honorary degree from Ulm University. Through his generous gift in 2003 Ulm University established this lecture series and several Nobel Prize winners have presented in this framework their research during the years 2003 to 2008. The center for IQST now resumes the Lamb Lectures.

It is a great honor for IQST to have Prof. Ali Yazdani (Princeton) give the first lecture in the new series.

Spotting the elusive Majorana under the microscope

Prof. Ali Yazdani, Princeton Institute for the Science and Technology of Materials (PRISM)

Abstract

Ettore Majorana famously considered that there may be fermions in nature that are their own antiparticle — and then he mysteriously disappeared just after proposing the idea in 1938. In recent years, we have learned how to engineer materials that harbor quasiparticles that behave as the fermions Majorana had envisioned. In this talk, I will describe how we can now create materials that harbor Majorana fermions and our unique ability to visualize them. I also will discuss how Majoranas in materials have exotic properties beyond just being their own antiparticles and their potential for creating a quantum computer.

Lamb Lecture

5:15 Welcome and Introduction
Prof. B. Keimer, MPI
and Prof. W. Schleich, UUlM

5:30 Lamb Lecture
Prof. A. Yazdani, Princeton University

Program | February 14th, 2017
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