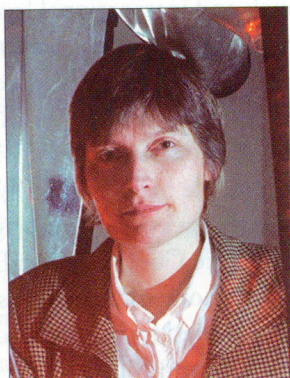


Richtmyer Award Citation



Lene Vestergaard Hau

Established in 1941, the **Richtmyer Memorial Award** is given in memory of Floyd K. Richtmyer. In selecting the recipient of the Richtmyer Memorial Award, the AAPT Awards Committee is guided by the following advice: "The ideal would be to anticipate the naming of a future Nobel Laureate." We may well have done that in selecting Professor Lene Vestergaard Hau to receive the 2004 Richtmyer Award.

Known to many as the physicist who "stopped light cold," Professor Hau's groundbreaking research has centered on using the Bose-Einstein condensate to manipulate light in a manner only dreamed of a few years ago. Her work has added greatly to our understanding of the interaction between light and matter, and opens the way to technological applications such as quantum information processing.

Professor Hau received her B.S., M.S., and Ph.D. degrees in physics from the University of Aarhus in Denmark and was a postdoctoral fellow in physics at Harvard University from 1989 to 1991. While her training was in theoretical physics, her interest soon turned to experimental efforts to create a new form of matter known as the Bose-Einstein conden-

sate. In 1991 she joined the Rowland Institute for Science in Cambridge as a scientific staff member. Since 1999 she has been Gordon McKay Professor of Applied Physics and professor of physics at Harvard.

A sought-after lecturer, Professor Hau has presented nearly 70 invited talks at seminars, symposia, and professional meetings. She has written numerous papers on the Bose-Einstein condensate and quantum and non-linear optics. She has received numerous honors for her scientific and service contributions. She was named Carlsberg Foundation Scholar from 1985 to 1986. The Faculty of Sciences of the University of Aarhus awarded her a research fellowship from 1986 to 1989. She was the recipient of the J.C. Jacobsen 200-Year Anniversary Award, presented by the Carlsberg Foundation in 1989, and of the Year-2000 Award from the TopDanmark Foundation, Copenhagen.

2001 was a remarkable year for Professor Hau, for in that year she was named MacArthur Fellow, was given the NKT award presented by the Danish Physical Society, and received the Ole Rømer Medal awarded by the president of the University of Copenhagen.

In the same year, she received an Honorary Degree, Æreshåndværker Kjøbenhavns Håndværkerforening, awarded in the presence of Her Majesty, Queen Margrethe II of Denmark, and was the recipient of the Samuel Friedman Rescue Award presented by the Friedman Foundation, University of California, Los Angeles. In 2002, Professor Hau was awarded an honorary appointment to the Royal Danish Academy of Sciences.

On a personal note, when I contacted Professor Hau I found her to be absolutely delightful. This did not surprise me for I had heard that she was extremely personable. But what did surprise me was the one-on-one tutorial that I received. After informing her of her award, I inquired about the business of stopping light. What ensued was perhaps the most enthralling phone conversation I've ever had! In a little more than a half-hour, Professor Hau enthusiastically and clearly described the essence of her work. I was taken by her ability to make electrically induced transparency so transparent, especially to a person with virtually no previous knowledge of the phenomenon.

Professor Hau's presentation was titled "Light at Bicycle Speed—and Slower Yet!"

DOI: 10.1119/1.1737956

Melba Newell Phillips Award Citation

The **Melba Newell Phillips Award** was established in 1981. The award, which is given only occasionally, recognizes individuals who have made exceptional contributions to physics education through their leadership in AAPT. This year AAPT is honored to present the Melba Newell Phillips Award to Robert Beck Clark. Robert's contributions to physics, physics education, and AAPT are legion. Revered by those who know him, he has been described as "a masterful teacher and a fine human being." A Physics Teaching Resource Agent wrote of him: "It is meeting and knowing such a person that is the greatest gift of the AAPT, NSF, and PTR."

Robert received his college education at Yale. He has spent 32 years