Video Article

An Interview with Nobel Laureate Theodor Hansch, Physics 2005

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URL: https://www.jove.com/video/1537
DOI: doi:10.3791/1537

Keywords: Physics, Issue 29, Nobel Laureate, Laser-Based Spectroscopy, Frequency Comb, Atomic Clocks, Quantum Optics,

Date Published: 7/13/2009

Citation: , N.A. An Interview with Nobel Laureate Theodor Hansch, Physics 2005. *J. Vis. Exp.* (29), e1537, doi:10.3791/1537 (2009).

Abstract

Theodor Hänsch was a co-recipient of the 2005 Nobel Prize in Physics for "contributions to the development of laser-based precision spectroscopy, including the optical frequency comb." In this video, Hänsch explains "in a nutshell" the frequency comb, its theories, its many applications, and the breakneck pace of the research leading up to the Nobel Prize. Much of the pivotal work occurred in the late 1990's, when Hänsch's group at the Max Planck Institute and John Hall's group at the Joint Institute for Laboratory Astrophysics (JILA) raced to demonstrate the technique first. A few years later, Hänsch and Hall shared one-half of the Nobel Prize in Physics; the remaining half was awarded to Roy Glauber for his work in quantum optics.

Hänsch recounts his years at Stanford University, where his accelerated academic trajectory could have predicted the momentum of his future research. He joined the faculty an associate professor in 1972 after completing a two-year post-doctoral fellowship – and after turning down an assistant professor position just one week earlier. By 1975, Hänsch was a full professor. He acclaims the progressive intellectual climate of Stanford and the surrounding area during the time personal computers were introduced; Hänsch describes the era as not only a technological revolution, but also a social revolution where an individual's ideas could thrive irrespective of academic rank. Hänsch goes on to describe some of the common characteristics of Nobel Laureates, and why he believes that training with a Nobel Laureate quantitatively increases one's own chances of winning a Nobel Prize.

Video Link

The video component of this article can be found at https://www.jove.com/video/1537/

Disclosures

The authors have nothing to disclose.

