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## Colloquium

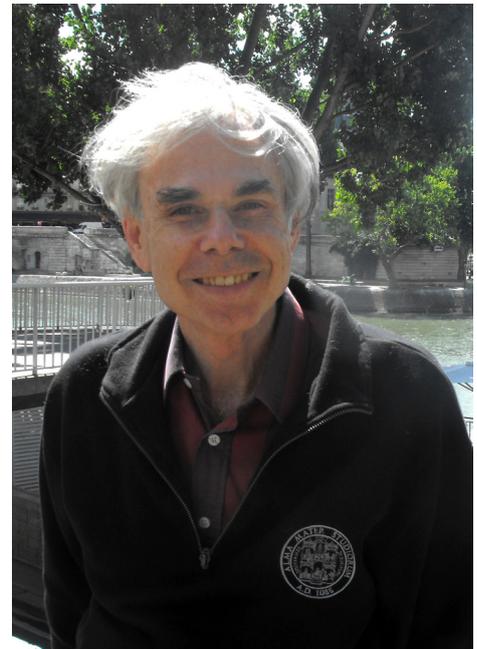
# Albert Einstein on Light; Light on Albert Einstein

## *Douglas Hofstadter*

Indiana University, Bloomington

Douglas Hofstadter is College of Arts and Sciences Professor of Cognitive Science, and Director of the Center for Research on Concepts and Cognition, at Indiana University in the US.

A legendary pioneer in the field of artificial intelligence, Hofstadter is best known for his Pulitzer Prize winning debut work, *Gödel, Escher, Bach: an Eternal Golden Braid*, published in 1979.



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**Date: Dec 18 at 15:15**  
**Location: Siegbahnsalen**

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The seminar is organized by the Department of Information Technology and the Department of Physics and Astronomy.



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# Albert Einstein on Light; Light on Albert Einstein

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Where does deep insight in physics come from? For those who view physics as a highly rational science grounded in strict mathematics, it is tempting to think that it comes from the purest and most precise of reasoning, following ironclad laws of thought that compel the clear mind completely rigidly. And yet the truth is quite otherwise. One finds, when one looks closely at any major discovery in physics, that the greatest of physicists are the most daring and are constantly being guided by blurry, instinctive, nearly irrational mental forces. Albert Einstein ideally exemplifies this thesis.

In this talk, I will discuss the eternal mystery of light, which, over the course of millennia, was puzzled over, pondered on, and slowly worked out by a series of great minds, and finally, in the nineteenth century, was definitively settled with clarity and rock-solid certainty. And yet one day in the early spring of 1905, quite out of the blue, came an absurd-seeming new suggestion from an unknown Swiss patent clerk, third class, clashing violently with that rock-solid piece of collective wisdom. How did the brazen patent clerk come up with this crazy idea? How it was received by the physics world? What was its eventual fate? And what can we learn about the workings of the human mind from this twisty story filled to the brim with ironies?

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