

Seminario Interdisciplinare (Fisica-Filosofia)

Coordinatori: *A. Cappelli, E. Castellani, F. Colomo*

Dipartimento di Fisica, Polo Scientifico (Sesto Fiorentino)
Aula Magna

Orario: 15-18

I tre fondamentali lavori di Einstein del 1905

I incontro: Venerdì 17 Marzo

Valerio Tognetti (*Dipartimento di Fisica, Firenze*)

Einstein and the first significant outcomes of quantum theory.

Between 1905 and 1907 Einstein wrote two celebrated papers which represent the first important achievements of the quantization idea. In 1905 he explained the photoelectric effect using the concept of quantum of light (photon) first introduced by Planck: He was Nobel graduated for this in 1921. In 1907 he used again the concept of quantum of energy of the vibrations of solids (phonons) for explaining the decrease of the specific heat at decreasing temperatures and its eventual vanishing at lowest temperatures.

Jos Uffink (*Institute for History and Foundations of Science, Utrecht*)

Einstein and the quantum theory

With his revolutionary light quantum hypothesis of 1905, Einstein was the first physicist who knowingly rejected classical physics. He thus became the pioneer and founding father of quantum mechanics. Yet, in the 1920s and 30s, Einstein emerged as the foremost critic of quantum mechanics. This talk will discuss Einstein's objections against the later development of his own brainchild.