

Realism and Relativity

Weinert, Friedel (2007) Realism and Relativity. In [2007] & HPS1: Integrated History and Philosophy of Science 1.

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Abstract

The line of argument pursued in this paper is to proceed from Einstein's fundamental problem situation to a consideration of scientific representation with respect to the Special theory of relativity (STR). Einstein's fundamental problem situation, which is Kantian in spirit, is how the conceptual freedom of the scientist is compatible with the need for an objective representation of an independently given material world. To solve this philosophical issue Einstein employs a number of constraints, which are central to the STR. The issue of scientific representation leads to a consideration of the notion of reality and to the realistic commitments implied in the STR. From this point of view, the paper concludes that Einstein was committed to a kind of 'structural' realism.

Keywords: Einstein, Realism, Relativity, Representation

Subjects: Specific Sciences: Physics: Relativity Theory

Conferences and Volumes: [2007] &HPS1: Integrated History and Philosophy of Science 1

ID Code: 3571

Deposited By: Weinert, Friedel
Deposited On: 05 October 2007

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