

High Energy Physics and Constructive Empiricism

Dawid, Richard (2005) High Energy Physics and Constructive Empiricism.

Full text available as:

[Microsoft Word](#) - Requires a viewer, such as [Microsoft Word Viewer](#)

Abstract

Progress in elementary particle physics in recent decades has changed the status of the visible phenomena in the context of scientific research. Empiricist positions in philosophy of science, which put particular emphasis on the pre-eminence of the visible regime, are affected by this development. In spite of its less radical claims, constructive empiricism turns out to run into more serious problems than straightforward instrumentalism. The constructive empiricist's emphasis on the scientist's aims makes it essential for her to provide a satisfactory motivation for scientific inquiry. This, however, seems difficult to achieve on an empiricist basis in the case of elementary particle physics.

Keywords: elementary particle physics, constructive empiricism, empirical adequacy, underdetermination, instrumentalism

Subjects: [Specific Sciences: Physics: Fields and Particles](#)
[General Issues: Realism/Anti-realism](#)
[General Issues: Operationalism/Instrumentalism](#)

ID Code: 2243

Deposited By: [Dawid, Richard](#)

Deposited On: 22 March 2005