

What might be learned today from Einstein's interface of physics and philosophy?



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Abstract:

Early in his career as a theoretical physicist, Einstein fashioned an identifiable working philosophy of physical theory that, in broad essentials, never changed. It is a "philosophy of principles" and in crucial respects, it is responsible for his greatest triumph, the relativistic theory of gravitation, as well as his greatest failure, an unwillingness to accept quantum mechanics on grounds that the wave function provides only an incomplete description of individual atomic systems. Is this philosophy of more than historical or biographical interest today? I shall argue that it is, and that greater familiarity with the broad contours of such a philosophy might prove a salutary addition to contemporary methodological debates around inflationary cosmology and string theory.

