

Abstract Submitted
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Hermann Weyl: Between Mathematics, Physics, and Philosophy¹

PETER PESIC, St. John's College, Santa Fe, NM — Hermann Weyl introduced gauge theories into physics in the context of his extensions of general relativity. His important mathematical contributions are much better-known than his involvement in philosophy, which was significant as he considered how to respond to Einstein's criticisms of Weyl's unified field theory. Weyl's philosophical approach also affected his own response to quantum theory, very different from Einstein's. The way Weyl dealt with these dilemmas may illuminate this important parting of the ways in theoretical physics and also show how philosophical reflection can be important in dealing with unsolved problems in physics.

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