

Abstract Submitted
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An Easy Experiment to Solve an Old Puzzle WALTON PERKINS,
Thorium Vision Corporation — Although the pion and kaon have spin zero, many experiments in the 1950's and 1960's showed that the pion and kaon carry directional information (see Ref. [1]). The probability of statistical fluctuations causing the observed effect is less than 1 in a 1000 in several experiments by different researchers. The problem with these old experiments is that the researchers never varied a parameter and showed that the observed effect varied in a predictable manner. Recently, it has been shown theoretically, that massive vector particles with spin zero can exist[2]. These spin-0 vector particles would be polarized along the direction of their creation, and a magnetic field cannot change that polarization direction. Thus, varying the angle between the polarization vector and the momentum of these charged particles using a magnetic field leads to a simple experimental test with predictable results. [1] W. A. Perkins, "Pion-Muon Asymmetry Revisted," *Int. J. Theor. Phys.* **47** (2008) 1316. [2] W. A. Perkins, "Massive vector particles with spin zero," *EPL (Europhysics Letters)* **114** (2016) 41002.

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