

Abstract Submitted
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Feynman diagrams interpreted by the Theory of Elementary Waves (TEW) JEFFREY BOYD, Retired — Feynman diagrams are interpreted as pictures of elementary rays. The Theory of Elementary Waves (TEW) is unknown to most physicists. It is the only local realistic picture of the quantum world that is consistent with the Bell test experiments. Like quantum mechanics, TEW violates the Bell inequalities, but unlike QM, TEW is local and realistic. It is neither the Einstein hidden variable nor the Wheeler-Feynman absorber theory. Apparently we live in an ocean of zero energy elementary waves, about which we know almost nothing. We seek a picture of the world of elementary rays, using quantum mathematics as our guide. Feynman diagrams provide the pictures we seek. Such diagrams are not supposed to be pictures of reality. Rather the Feynman tradition says we should integrate across all Feynman diagrams to calculate the overall probability amplitude of a superposition. However we violate the rules and take them as pictures of reality. TEW sounds preposterous to many. Thomas Kuhn reminds us that the major paradigm shifts in science sounded preposterous to scientists of previous decades. TEW involves a MAJOR paradigm shift in both quantum and classical physics.

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