

Abstract Submitted
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It from Bit or Them from Ylem? RICHARD GAUTHIER¹, Santa Rosa Junior College — John Archibald Wheeler’s phrase “it from bit” suggests that quantum mechanics and the explanation for physical existence may be based on information theory. According to this idea, physical reality may arise from yes-no binary outcomes in quantum measurement experiments, and perhaps from an even deeper information level. This article proposes another idea: that superluminal energy quanta embody the information needed to form the fundamental particles that produce our universe. Superluminal energy quanta were the primordial matter that produced the first hot plasma of fundamental particles during the Big Bang. One superluminal energy quantum may have formed the original primordial quantum particle that produced our universe – the cosmic quantum, which is proposed to also be the first particle of dark matter. Superluminal energy quanta continue to form fundamental particles today such as photons and electrons. The primordial matter of the universe, traditionally called ylem, is proposed to be superluminal energy quanta that form the fundamental particles of our universe – giving rise to the expression “them from ylem”.

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