

# 8.701

Introduction to Nuclear  
and Particle Physics

Markus Klute - MIT

4. QED

4.3 Antiparticles



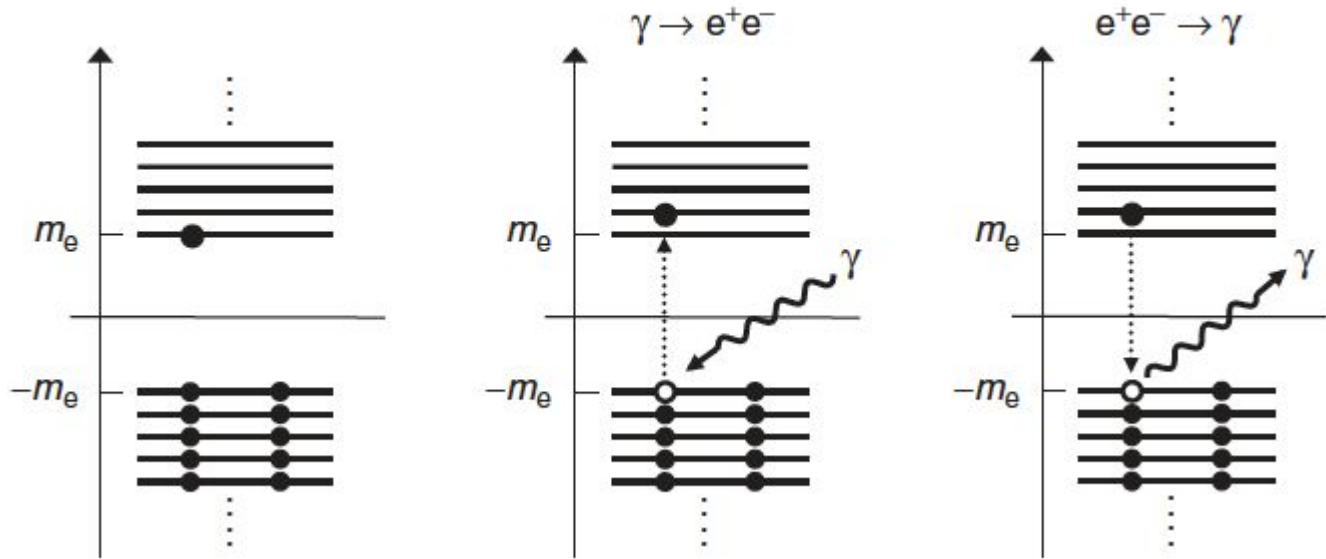
# Negative Energy Solutions

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... can not be simply be discarded. We need to find a physical interpretation.

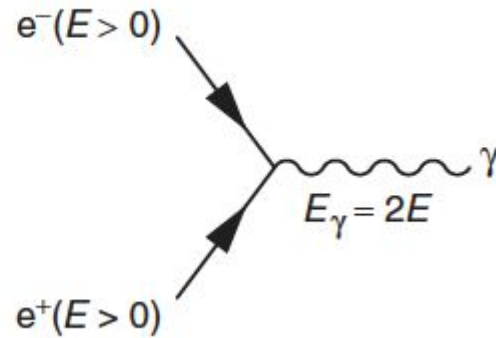
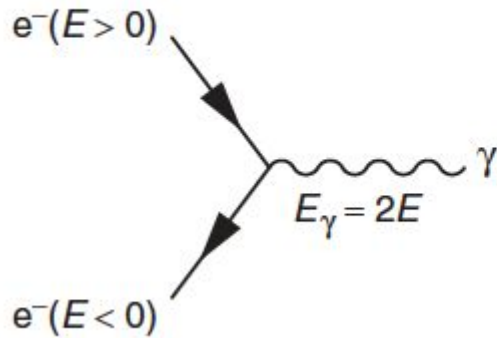
# Dirac Sea Interpretation

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# Feynman-Stückelberg Interpretation

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$$\exp\{-iEt\} \equiv \exp\{-i(-E)(-t)\}$$

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