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No-Go Dark Energy from Generalized SU(2) Proca Theories

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The Generalized SU(2) Proca theory, despite its potential in modeling various physical phenomena, fails to accurately describe dark energy. Using the Green's function formalism, approximate solutions demonstrate that dark energy solutions exist independently of the cosmic epoch. However, integrating Proca SU(2) dark energy with matter and radiation introduces singularities during the transition from the matter epoch to the dark energy epoch, undermining the consistency of the model. Consequently, this theory cannot provide a reliable framework for modeling a dark energy-dominated universe.

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