

Abstract Submitted
for the FWS20 Meeting of
The American Physical Society

Massive Photon, Magnetic Charge and the Dirac Quantization Condition MICHAEL DUNIA, TIM EVANS, DOUGLAS SINGLETON, California State University, Fresno — In this paper we correct previous work on magnetic charge plus a photon mass. We show that contrary to previous claims this system has a very simple, closed form solution which is the Dirac string potential multiplied by an exponential decaying part. Interesting features of this solution are discussed namely: (i) the Dirac string becomes a real feature of the solution; (ii) the breaking of gauge symmetry via the photon mass leads to a breaking of the rotational symmetry of the monopole's magnetic field; (iii) the Dirac quantization condition is potentially altered.

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Date submitted: 24 Sep 2020

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