

# Magnetic monopole mass

*Monday, 24 June 2019 09:15 (35 minutes)*

After a short general introduction to the theory of magnetic monopoles, with an emphasis on their masses within different models, I will focus specifically on the electroweak Cho-Maison magnetic monopole and present some exact monopole solutions in effective extensions of the Standard Model that have a Bogomol'nyi-Prasad-Sommerfield (BPS) limit. I'll show that the phenomenologically relevant lower bound to the mass of the magnetic monopole is  $M \geq 2\pi v/g \approx 2.37$  TeV. I'll argue that this bound holds universally, not just in theories with a BPS limit.

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