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A bogomol'nyi equation for magnetic skyrmions

Thursday, 19 December 2019 12:00 (30 minutes)

In the field of topological solitons, the bogomol'nyi trick is a method that can be used to find non-trivial minima of the energy functional where the Euler-Lagrange equations are generally too hard to solve. In the field of condensed matter, magnetic skyrmions are one of the few real-life examples of topological solitons, with potential applications in memory storage. In this talk I will introduce both the bogomol'nyi trick and the magnetic skyrmion model, and describe how the former has been used to find an infinite family of exact solutions to the latter (ref: arXiv:1812.07268).

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