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**Magnetic solitons in a binary Bose-Einstein condensate** CHUNLEI QU, LEV PITAEVSKII, SANDRO STRINGARI, INO-CNR BEC Center and Dipartimento di Fisica, Universit di Trento — Solitons, the fascinating topological excitations of nonlinear systems, have drawn a considerable research interest in many physical branches. Here I will talk about a magnetic soliton solution to a two-component repulsive Bose gas. The properties of the soliton, including the wave function, the energy and the effective mass, will be presented. I will also discuss the oscillation behaviour of the magnetic solitons in a harmonic trap.

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