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## **Semirelativistic potential modelling of bound states: Advocating due rigour**

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Within quantum field theory, an adequate formalism for the description of (two-particle) bound states, such as ordinary mesons, is provided by the Poincaré-covariant homogeneous Bethe-Salpeter equation. From this — frequently rather involved — framework, however, it is not always quite easy to extract predictions. In view of this, a coarse idea of the bound-state spectrum to be expected may be gained by adhering to various simplifying approximations, which forms an entirely legitimate first step. The reliability of the insights deduced from the resulting simpler bound-state formalism may be straightforwardly examined by taking into account a couple of rigorous constraints on the emerging discrete spectrum. This has been illustrated for a variety of both singular interaction potentials, such as those of Coulomb or Yukawa shape, and nonsingular ones, such as the one proposed by Woods and Saxon.

**Autore principale:** Dr. LUCHA, Wolfgang (Austrian Academy of Sciences)

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