

Supersymmetric Expansion Algorithm: from heavy quarkonium to dark matter

Content

In this talk we review a novel procedure to obtain for the first time analytical solutions to the non-relativistic dynamics of several quantum systems of present interest, ranging from condensed matter to heavy quarkonium and to dark matter. We focus on a detailed analysis of the complete solutions for heavy quarkonium dynamics based on the Cornell potential which yields outstanding predictions for charmonium and bottomonium which nicely agree with data.

Summary

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