

VII Leopoldo García-Colín Mexican Meeting on Mathematical and
Experimental Physics



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HORACIO PILÓN: An analytic representation for the three-body interaction

Friday, 21 February 2020 16:30 (30 minutes)

An analytic representation of the three-body potential for the ground state of the molecular ion H_3^{++} in equilateral triangle configuration is presented. This representation is based on an adequate description of the two-body potential energy curve $V(R)$ for the diatomic molecule H_2^+ . The accurate representation of $V(R)$ for H_2^+ is achieved by matching short and long distances behavior via two-point Padé approximation. In general, the approximation provides 3-4 significant digits correctly.

Session Classification: SHORT TALKS

Track Classification: SYMPOSIUM ON SCATTERING, QUANTUM AND CLASSICAL TRANSPORT