HARMONIC OSCILLATOR GREEN FUNCTIONS[1]

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The Green function for the Schrödinger equation with an isotropic, three-dimensional harmonic oscillator potential is given in closed form. A similar closed form is obtained when the Schrödinger equation also contains a magnetic interaction and the magnetic field is such that the precession and oscillation frequencies are equal. The latter Green function is used to obtain energy and Sturmian eigenvalues that occur in the theory of atom–atom collisions.

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