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Two-Body with Confining Potentials<sup>1</sup> JOSEPH MCEWEN, JOSEPH DAY, ARNULFO GONZALEZ, ZOLTAN PAPP, California State University Long Beach, WHATEVER TEAM — A formalism is presented that allows an asymptotically exact solution of non-relativistic and semi-relativistic two-body problems with infinitely rising confining potentials. We consider both linear and quadratic confinement. The additional short-range terms are expanded in a Coulomb-Sturmian basis. Such kinds of Hamiltonians are frequently used in atomic, nuclear, and particle physics.

<sup>1</sup>Published in Springer Few Body Systems

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