

In the  $D = 1$  dimensional space, we study the bound state solutions of the potential  $V(x) = -\frac{e}{x} + bx^2$  ( $e, b > 0$ ). They occur on the right half-plane  $x \in [0, \infty[$ . In the limit  $b \rightarrow 0$ , we recover the spectrum of the  $D = 1$  Coulomb potential. Supersymmetric properties are briefly discussed. The model is extended by considering complex coupling constants. Nonlinear effects are also treated by considering a linear energy dependence of the  $e$  coupling constant