

Contribution Title: ON A HYDROGEN ATOM IN A THIN SLAB
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YRS seminar: YES

The two-dimensional effective Hamiltonian that approximates a hydrogen atom in a very thin slab is proposed. We prove that it may be viewed as a perturbation of the two-dimensional Coulomb Hamiltonian. Consequently, the bottom of the energy spectrum of the effective and the atomic Hamiltonian is analyzed. It seems that the methods used within the treatment may be applied in the multi-electron case too.