Orthogonal Polynomial Projection Quantization method applied to hydrogen atoms in large magnetic fields D. VRINCEANU, Texas Southern University — Orthogonal Polynomial Projection Quantization is a method that takes advantage of the algebraic structure of the equation of power moments that can be derived for a class of Schröedinger equations. One important advantage of this approach is that is able to describe well the wave function at both local and global level, which results in increased convergence rates and precision. Results for the problem of hydrogen atom in large magnetic fields are presented and compared with the state of art numerical results.

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