

The fine structure of the N-dimensional hydrogen atom

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Abstract: *The fine structure of energy levels of a hydrogen atom in N dimensions is given. This is done by calculating the first-order energy corrections due to the relativistic correction to kinetic energy, spin-orbit coupling, and Darwin term. Thus we emphasize the role of the topological structure of the configuration space of a physical system on the quantum nature of an observable of the system.*

Keywords: *Foundations, Formalism, Fine structure.*