

Abstract

This paper addresses different methods for solving a sixdimensional integral in a brute force way. The integral of interest is of the wave function for a helium atom in order to determine its ground energy between its two electrons. We will assume that the wave function for each elektron can be modelled like the single - particle wace function of an electron in the hydrogen atom. The function appears in several quantum mechanical applications and the methodes applied are widley used for numerical computations.