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Coherent States for the Hydrogen Atom

of

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Physics

<u>Abstract:</u> We obtained the coherent states for the hydrogen atom by transforming the problem onto the four oscillators in the parametric time at the classical level and quantizing these oscillators. We showed that for the coherent states the mean values of the physical position of the electron satisfy the Keplerian ellipsis and the dispersions of them oscillate in the parametric time.



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