

Grade: **A++**

Dear Tony,

You have written a beautiful paper on the Hartree-Fock method. It was a real pleasure to read a paper of such depth and clarity. You gave such a lucid discussion of the Hartree-Fock method, which could have already earned you an A. But you went much beyond that. The discussion of computer implementation and the actual numerical calculation in the example  $HeH^+$  were just wonderful. Throughout the paper you never let the mathematical formalism or technical discussion obscure the physical picture. The only comment: on p.20 when you give the bond length and vibrational frequency that you have calculated, it would be good to state what the experimental values are, or if they are known.

Nearly perfect!

Congratulations on the excellent work!

Hong Liu

Comments from David Guarrera

Wow, this paper is incredible. You might have gone a bit overboard, but the explanations are clear, and the physics is very cool. Well done.