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### **Double Photoionization of Molecular Hydrogen**

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We report a complete numerical solution of the Schrödinger equation for the double photoionization of H<sub>2</sub>, a process where a single photon emits two electrons. The results suggest that the distribution of photoelectrons emitted from aligned molecules reflects electron correlation effects that are purely molecular in origin. It confirms recent experimental results in experiments on oriented hydrogen molecules. These experiments observed that the ejection pattern of the electrons depends sensitively on the bond distance between the two nuclei as well as the orientation with respect to the polarization of the photon. We give an overview of the numerical methods we used to solve the exact Schrodinger equation for this problem. We also discuss the different molecular effect we observe in our calculations and compare with experimental observations

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