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Double-Pulse Spectra and Closed-Orbits: Photodetachment of ${\rm H}^{\scriptscriptstyle -}$ in Parallel Electric and Magnetic Fields

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Abstract: We derive a formula for double-pulse spectra from closed-orbit theory. We then calculate the double-pulse photodetachment spectra of ${\rm H}^{\scriptscriptstyle -}$ in the presence of parallel electric and magnetic fields. We analyze the spectra in terms of closed-orbits of the system. We suggest a method for the measurement of a phase associated with each closed-orbit.

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Key words: closed-orbit theory, photodetachment, Stark effect

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