Abstract Submitted
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**Redistribution effects in single photon ionization of Rydberg states with IR laser pulses**[1] JOEL VENZKE, EDWARD MACDONALD, YONAS GEBRE, AGNIESZKA JARON-BECKER, ANDREAS BECKER, JILA and Department of Physics, University of Colorado, Boulder — Rydberg states have been shown to survive multi-photon ionization induced by intense IR laser pulses. In this poster, we study the impact of high intensity IR laser pulses on highly excited states in the hydrogen and helium atoms through numerical solutions of the Time Dependent Schrodinger equation. By starting the calculations in a highly excited state, we can analyze the interplay between one photon ionization, few-photon stabilization (e.g. lambda processes), de-excitation, and other higher order processes as a function of angular momentum quantum numbers, laser intensity, and wavelength.

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