Abstract Submitted
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The role of intermediate resonances in population of Rydberg states excited by a strong laser pulse[1] JOEL VENZKE, YONAS GEBRE, ZETONG XUE , AGNIESZKA JARON-BECKER, ANDREAS BECKER, JILA and Department of Physics, University of Colorado, Boulder — We have studied structures of Rydberg state populations for hydrogen and helium atoms via multi-photon transitions induced by intense laser pulse using numerical solutions of the time-dependent Schrödinger equation. In the results will consider the dependence on wavelengths from ultraviolet to infrared, which allow us to analyze the role of intermediate states shifted in and out of multiphoton resonances. The impact of the low-lying excited states on the angular momentum distributions in Rydberg states will be discussed.

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