

Abstract Submitted  
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**Double ionization of dimers in intense laser pulses**<sup>1</sup> HONGCHENG NI, JILA, University of Colorado at Boulder, USA, CAMILO RUIZ, Centro de Láseres Pulsados Ultracortos Ultraintensos, Spain, ANDREAS BECKER, JILA, University of Colorado at Boulder, USA — Experiments on double ionization of rare gas dimers by weak synchrotron radiation as well as by strong infrared laser pulses have been reported recently. New pathways to double ionization, in which the electrons are emitted either from the same atom or different atoms in the dimer, have been proposed on the basis of the experimental data. We apply a recently developed theoretical two-electron model to explore the correlated emission of two electrons in a rare gas dimer due to the interaction with attosecond VUV and XUV radiation and/or intense near-infrared laser pulses. In particular, we study the double ionization mechanisms mediated by electron correlation and their temporal resolution.

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