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Optical two-dimensional Fourier transform spectroscopy of single GaAs quantum wells YURI D. GLINKA, ZHENG SUN, XIAOQIN LI, Physics department, University of Texas-Austin, TX 78712 USA, ALLAN BRACKER, Naval Research Lab, Washington, DC 20375 USA — Optical two-dimensional Fourier transform spectroscopy is applied to study the coherent coupling between light-hole and heavy-hole excitons in single GaAs quantum wells instead of those consisted of ten or four periods of GaAs separated by $Al_{0.3}Ga_{0.7}As$ barriers measured previously. The effect of the confinement energy as well as Coulomb and disorder correlation lengths on coherent coupling dynamics is discussed. The financial support from ARO, NSF, and Welch foundation is gratefully acknowledged.

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