

Abstract Submitted
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Evolution of odd-denominator fractional quantum Hall states in a two-subband system¹ MANSOUR SHAYEGAN, JAVAD SHABANI, YANG LIU, Princeton University — Our magneto-transport measurements reveal that the sequence of fractional quantum Hall (FQH) states observed in two-subband, wide GaAs quantum wells at high fillings ($\nu > 2$) are very different from those of a single-subband system. When the Fermi level lies in the lowest Landau level of either of the two subbands the odd-denominator FQH states following the usual, composite fermion filling sequences are observed. These include states at $\nu = 7/3, 8/3, 12/5, 13/5, 10/3, 11/3, 17/5, 18/5,$ and $25/7$. The evolution of these states with changing the Zeeman and subband energies is consistent with coincidences of composite fermion Landau levels.

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