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Pauli Blocking Effect on 2D Trimers Near Feshbach Resonance¹ ANFFANY CHEN, FEI ZHOU, University of British Columbia — We investigate the Pauli blocking effect on 2D three-body bound states near Feshbach resonance in the presence of a Fermi sea background. We develop 2D wave equations that include the Pauli blocking effect of background fermions and obtain universal results that are fully characterized by the 2D scattering length and the Fermi wave length. This work will be a stepping stone for future more elaborated studies of 2D many-body physics, bringing us one step closer to understanding the mechanisms underlying intriguing 2D gases.

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