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Complete Density Landscape for a Model Confined Liquid ASHWIN SELVARAJAN SAMPANGIRAJ, RICHARD K. BOWLES, Department of Chemistry, University of Saskatchewan — We enumerate the complete jamming landscape for a system of hard discs with diameter σ confined between walls having a separation h , such that $1.866 < h/\sigma < 2$. The enumeration is done by using tiles to represent local jamming structures to construct globally jammed states. We discuss the role of these tiles in the thermodynamic behavior of the corresponding liquid. The Free energy of the landscape is calculated using these tiles and we discuss the role of these tiles in the liquid to liquid transition. The complete jamming landscape also provides insight into the long standing question of the ideal glass transition.

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