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Specific heat and anomalous effective dimensionality of quantum gases adsorbed near nanopores¹ MAMADOU MBAYE, Howard University, STEVEN FULL, JESSICA MCNUTT, MILTON COLE, Pennsylvania State University, SILVINA GATICA, Howard University — Three problems involving quasi-one-dimensional (1D) ideal gases are discussed: quantum particles localized within the “groove” between nanotubes, between two nearly parallel, coplanar nanotubes and confined in the interstitial region between four square parallel pores. The low T behavior found in most cases differs qualitatively from naive expectations.

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