

CORRELATIONS AND FORCES IN STRONGLY COUPLED DUSTY PLASMAS

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S u m m a r y

A systematic procedure based on the Born—Green—Yvon (BGY) hierarchy is developed to find the higher order correlation functions and the interaction potential of strongly coupled, charged dust particles in the liquid phase, in terms of their measurable structure factor. The possibility to describe the gas-liquid transition of dusty plasmas in the framework of percolation theory is discussed.