

# On the Cluster Property Above the Critical Temperature in Lattice Gases

G. GALLAVOTTI and S. MIRACLE-SOLE\*

Institut des Hautes Etudes Scientifiques  
91 Bures-sur-Yvette — France

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**Abstract.** We prove cluster properties of the correlation functions at high temperature and arbitrary activity. We obtain also results on clustering at complex temperatures and activities.

## § 1. Introduction

In a recent paper [1] it was shown that the correlation functions of a lattice gas with negative two-body interactions have some cluster property not only at low activity, as known before [2–4] but also for all values of the activity  $z$  inside the Lee-Yang circle defined by

$$|z| < \exp \beta A \quad A = \sum_{0 \neq y \in Z^v} \varphi(y). \quad (1)$$

Similar results [1] have been obtained for purely repulsive potentials but with the Lee-Yang circle replaced by the circle of convergence of the Mayer series.

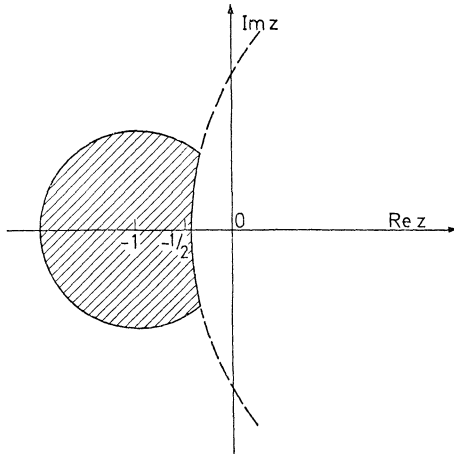


Fig. 1

\* On leave of absence from Aix-Marseille University.