

COMBINATORIAL ASPECTS OF THE STRONG SPATIAL MIXING PROPERTY

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In this talk we will look into some necessary and sufficient conditions for Zd shift spaces in order to admit the existence of Gibbs states –arising from nearest-neighbour interactions– satisfying the strong spatial mixing (SSM) property. SSM is a measure-theoretic property that has connections with decay of correlations, uniqueness of equilibrium states, and pressure approximation. Many of these conditions make use of and refine some natural notions coming from multidimensional symbolic dynamics.