Seminar of Probability and Stochastic Process

Wednesday, 5th October, from 14h15 to 15h00
GR A3 32, EPFL, Ecublens

Dr. Loren Coquille
University of Geneva

Gibbs measures of the 2d Ising model

Abstract:

In the late 1970s, in two celebrated papers, Aizenman and Higuchi independently established that all infinite-volume Gibbs measures of the 2d Ising model are a convex combination of the two pure phases. After introducing the relevant definitions and concepts needed to understand the physical content of this result, I will present a new approach to it, with a number of advantages:

(i) a finite-volume, quantitative analogue (implying the classical claim) is obtained;

(ii) the scheme of the proof seems more natural and provides a better picture of the underlying physical phenomenon;

(iii) this new approach seems substantially more robust (possible extension to the Potts model).

This is a joint work with Yvan Velenik.

Date of last change: Fri, 23 Sep 2011 11:45:47, by Le CHEN