

# 概率论系列报告

报告题目 (Title): Random cluster dynamics of the Ising model is rapidly mixing

报告人 (Speaker): 郭珩 博士 University of Edinburg

时间 (Time): 12月25日(周一)下午 3:00-4:00

地点 (Venue): 北京大学理科一号楼

摘要 (Abstract): We show that the mixing time of Glauber (single edge update) dynamics for the random cluster model at  $q = 2$  is bounded by a polynomial in the size of an arbitrary underlying graph. Combined with a result of Ullrich (2014), the Swendsen-Wang algorithm for the ferromagnetic Ising model at any temperature has the same polynomial mixing time bound. This answers an open problem raised by Alan Sokal and Yuval Peres. Joint work with Mark Jerrum.

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