

**Rozikov, U. A.****On  $q$ -component models on Cayley tree: contour method.** (English) Zbl 1076.82509

Lett. Math. Phys. 71, No. 1, 27-38 (2005).

Summary: In the Letter we investigate a  $q$ -component models on a Cayley tree. The main goal of the Letter is to develop a “contour” argument on Cayley tree. We define contours and study some properties of these contours. Using a contour argument we show existence of  $q$  different Gibbs measures for several  $q$ -component models.

**MSC:****82B20** Lattice systems (Ising, dimer, Potts, etc.) and systems on graphs arising in equilibrium statistical mechanics**82B05** Classical equilibrium statistical mechanics (general)**60K35** Interacting random processes; statistical mechanics type models; percolation theory**05C05** TreesCited in **1** Review  
Cited in **11** Documents**Keywords:**

Cayley tree; configuration; Potts model; SOS model; contour; Gibbs measure

**Full Text:** [DOI](#)**References:**

- [1] Fernández, R.: Contour ensembles and the description of Gibbsian probability distributions at low temperature. [www.univ-rouen.fr/LMRS/persopage/Fernandez](http://www.univ-rouen.fr/LMRS/persopage/Fernandez), 1998.
- [2] Fernández, R.: Contour ensembles and the description of Gibbsian probability distributions at low temperature. [www.univ-rouen.fr/LMRS/persopage/Fernandez](http://www.univ-rouen.fr/LMRS/persopage/Fernandez), 1998.
- [3] Minlos, R. A.: Introduction to Mathematical Statistical Physics, University lecture series, ISSN 1047-3998; v.19, 2000

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