PERIODIC AND WEAKLY PERIODIC GROUND STATES FOR THE POTTS MODEL WITH COMPETING INTERACTIONS ON THE CAYLEY TREE

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We consider the Potts model with competing interactions on the Cayley tree of order k with $k \geq 2$. We describe the sets of periodic and weakly periodic ground states corresponding to normal subgroups of the group representation of the Cayley tree of index 4.

Key words and phrases: Cayley tree, Potts model, periodic and weakly periodic ground states.

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