CRITICAL INDEX FOR ELASTIC MODULI OF RANDOM CUBIC LATTICE

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S u m m a r y

The critical index T for elastic moduli of a random site percolation cubic lattice is found by numerical simulation methods. A microscopic elastic Hamiltonian is used, which contains bond-stretching and bond-bending angular forces. We have calculated the critical exponent T as a function of the degree of correlation in arrangements of occupied sites, which describes the behavior of elastic stiffness near the percolation threshold. It is shown that T is different from the conductivity index t and essentially depends on correlation changes.