Department of Mathematical Sciences
The Johns Hopkins University

SEMINAR

John Wierman
Department of Mathematical Sciences
The Johns Hopkins University

October 16, 2003
304 Whitehead Hall
Refreshments: 3:30 p.m.
Seminar: 4:00 p.m.

UNIVERSAL FORMULAS FOR PERCOLATION THRESHOLDS

Abstract

Since the introduction of percolation models in the 1950s, determination of the percolation thresholds of various lattices has been an important and challenging problem. Only a few exact solutions are known, so considerable effort has been devoted to finding bounds, simulation estimates, and approximation formulas called "universal formulas." The talk will discuss recent developments regarding approximation formulas, and propose a new universal formula that outperforms previous formulas.