

Abstract Submitted
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Percolation density profiles and lattice structures ROBERT ZIFF, University of Michigan, PETER KLEBAN, University of Maine, JACOB SIMMONS, Oxford University, CHRISTIAN SCULLARD, University of Chicago — This poster presents a visual display of results on percolation density profiles from anchor points and intervals along the side, demonstrating our theoretical predictions of various forms of factorization of the three point functions into products of two-point functions (some with square roots). We also show a gallery of numerous lattice structures where the percolation threshold can be found exactly through the triangle-triangle transformation, or approximately (to very high precision) by generalizations of known formulas. Studies of various classes of lattices shows slight but non-zero corrections for most non-triangular configurations. Methods to numerically find the threshold (hull generation, cluster growth, and cluster-coalescence) are also presented.

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