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2.4 FABRICATED NETWORKS; 2.4.1 Finite-Element Network on a Disk; 2.4.2 Finite-Element Network on a Square; 2.4.3 Delaunay Triangulation of an Arbitrary Set of Nodes; 2.4.4 Delaunay Triangulation of a Perturbed Cartesian Grid; 2.4.5 Finite Element Network Descending from an Octahedron; 2.4.6 Finite Element Network Descending from an Icosahedron; 2.5 LINK REMOVAL AND ADDITION; 2.5.1 Single and Multiple Link; 2.5.2 Link Addition; 2.6 INFINITE LATTICES; 2.6.1 Bravais Lattices; 2.6.2 Archimedean Lattices; 2.6.3 Laves Lattices
2.6.4 Other Two-Dimensional Lattices2.6.5 Cubic Lattices; 2.7 PERCOLATION THRESHOLDS; 2.7.1 Link (Bond) Percolation Threshold; 2.7.2 Node Percolation Threshold; 2.7.3 Computation of Percolation Thresholds; SPECTRA OF LATTICES; 3.1 SQUARE LATTICE; 3.1.1 Isolated Network; 3.1.2 Periodic Strip; 3.1.3 Doubly Periodic Network; 3.1.4 Doubly Periodic Sheared Network; 3.2 MOBIUS STRIPS; 3.2.1 Horizontal Strip; 3.2.2 Vertical Strip; 3.2.3 Klein Bottle; 3.3 HEXAGONAL LATTICE; 3.3.1 Isolated Network; 3.3.2 Doubly Periodic Network; 3.3.3 Alternative Node Indexing; 3.4 MODIFIED UNION JACK LATTICE
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4.2.2 Embedded Networks

Sommario/riassunto

An Introduction to Grids, Graphs, and Networks aims to provide a concise introduction to graphs and networks at a level that is accessible to scientists, engineers, and students. In a practical approach, the book presents only the necessary theoretical concepts from mathematics and considers a variety of physical and conceptual configurations as prototypes or examples. The subject is timely, as the performance of networks is recognized as an important topic in the study of complex systems with applications in energy, material, and information grid transport (epitomized by the internet). The bo