Spherical Wave Front Generation in Lattice Computers

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Abstract

For parallel processing computers based on geometric lattices (including root lattices) algorithms are presented for the "physical" propagation of constant speed, non-dissipating, euclidean-spherical wave fronts in euclidean n-space. The motivation includes obtaining as close to perfect as possible, *real-time, analogical* simulation of wave phenomena and also of the uniform expansion/contraction of geometric figures about a point. Also shown is just how close to perfect is possible.

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