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**ROB SCHAREIN**, Hypnagogic Software

*Minimal Step Numbers for Knotted  $\theta$ -curves and Handcuff Graphs on the Simple Cubic Lattice*

We use Moriuchi's enumeration of prime  $\theta$ -curves and handcuff graphs up to seven crossings to create instantiations of these on the simple cubic lattice. From there an implementation of the BFACF algorithm on the lattice for trivalent graphs is used to find minimal step number (MSN) candidates. This algorithm implements the exhaustive set of moves found by Tamaki. Preliminary MSN results will be shown.