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Aaron Hoffman and Benjamin Kennedy* (bkennedy@gettysburg.edu), Department of Mathematics, Gettysburg College, 300 N. Washington St., Gettysburg, PA 17325. Existence and uniqueness of traveling waves in a class of unidirectional lattice differential equations.

We discuss the existence and uniqueness, for wave speeds sufficiently large, of monotone traveling wave solutions connecting 0 and 1 for a class of N-dimensional lattice differential equations with unidirectional coupling. The class of systems that we study includes as a special case the one-dimensional lattice equation

$$u'_{n} = -u_{n} + u_{n-1}^{2}.$$

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