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Russell W. Schwab* (rschwab@math.msu.edu), 619 Red Cedar Rd., East Lansing, MI 48824, and **Nestor Guillen**. *Integro-Differential Methods for Neumann Homogenization*. Preliminary report.

We use a recent result about the representation of the Dirichlet-to-Neumann operator for fully nonlinear equations as an integro-differential operator on the boundary of the domain to guide the analysis of the homogenization problem with oscillatory Neumann data. This allows to use methods already established for integro-differential equations. We will present the case of a periodic environment with a half-space domain whose boundary is an irrationally oriented hyperplane, and this results in the study of a global almost periodic nonlocal equation on the hyperplane. This is joint work with Nestor Guillen. (Received August 12, 2013)