Maarten V De Hoop* (mdehoop@math.purdue.edu), Department of Mathematics, Purdue University, 150 North University Street, West Lafayete, IN 47907-2067. Curvelets and the one-way acoustic wave equation. Preliminary report.

We study how to derive numerical solutions of the one-way acoustic wave equation using expansions of the acoustic pressure based on curvelets. Our implementation utilizes the Fast curvelet transform. (Received September 28, 2005)