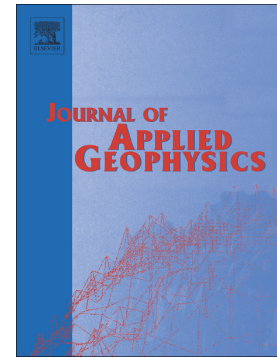


Accepted Manuscript

3D superwide-angle one-way propagator and its application in seismic modeling and imaging

Xiaofeng Jia, Yunong Jiang, Ru-Shan Wu



PII: S0926-9851(17)30844-3
DOI: doi:[10.1016/j.jappgeo.2018.04.022](https://doi.org/10.1016/j.jappgeo.2018.04.022)
Reference: APPGEO 3505

To appear in:

Received date: 13 September 2017
Revised date: 12 March 2018
Accepted date: 23 April 2018

Please cite this article as: Xiaofeng Jia, Yunong Jiang, Ru-Shan Wu , 3D superwide-angle one-way propagator and its application in seismic modeling and imaging. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Appgeo(2018), doi:[10.1016/j.jappgeo.2018.04.022](https://doi.org/10.1016/j.jappgeo.2018.04.022)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

3D superwide-angle one-way propagator and its application in seismic modeling and imaging

Xiaofeng Jia*, Yunong Jiang* and Ru-Shan Wu[†]

** Laboratory of Seismology and Physics of Earths Interior,*

School of Earth and Space Science,

University of Science and Technology of China,

Hefei, Anhui, China, 230026.

[†] University of California, Santa Cruz,

CA 95060, United States of America.

(May 8, 2018)

Running head: **superwide-angle propagator**

ABSTRACT

Traditional one-way wave-equation based propagators have been widely used in past decades. Comparing to two-way propagators, one-way methods have higher efficiency and lower memory demands. These two features are especially important in solving large-scale 3D problems. However, regular one-way propagators cannot simulate waves that propagate in large angles within 90° because of their inherent wide angle limitation. Traditional one-way can only propagate along the determined direction (e.g., z-direction), so simulation of turning waves is beyond the ability of one-way methods. We develop 3D superwide-angle one-way propagator to overcome angle limitation and to simulate turning waves with superwide-angle propagation angle ($> 90^\circ$) for modeling and imaging complex geological structures.

Download English Version:

<https://daneshyari.com/en/article/8915376>

Download Persian Version:

<https://daneshyari.com/article/8915376>

[Daneshyari.com](https://daneshyari.com)