

# NON-MINIMUM PHASE SEISMIC WAVELET RECONSTRUCTION BASED ON HIGHER ORDER STATISTICS

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**[Abstract]** Based on higher order statistics property containing signal phase information, fourth order cumulant and its fourth order spectral on the seismic received signal, a novel approach for estimating non-minimum phase seismic wavelet is proposed. It can be fully reconstructed from the fourth order spectrum by only spectral decomposing the seismic wavelet into minimum phase and maximum phase in arbitrary Gaussian environment. Computer simulation demonstrates its effectiveness.

**[Key words]** Fourth order cumulant, Fourth order spectral, Non-minimum phase, Seismic wavelet reconstruction, Spectral decomposition.

## 1. Introduction

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## 2. Description of signal model

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## 3.

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## Reference

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