

## **Importance of Wavelet Phase Stability in Seismic Interpretation**

**Mirko van der Baan<sup>1</sup>**

<sup>1</sup>Department of Physics, University of Alberta, Edmonton, Alberta, Canada

### **Abstract**

Accurate knowledge of the seismic wavelet is important in acquisition, processing and interpretation. Operators and service companies therefore place great emphasis on controlled-phase acquisition and processing such that wavelet instabilities are eliminated or at least kept at a minimum. Seismic interpretation can then be performed with the highest possible confidence, circumventing potential pitfalls introduced by laterally and/or temporally varying wavelets.

This talk will review the importance of wavelet stability from both a processor's and interpreter's perspective, describe the various generic types of wavelets that are encountered in processing and interpretation, outline simple quality control measures to ensure wavelet (phase) stability, and finally describe how analysis of a locally observed phase may help in seismic interpretation.