

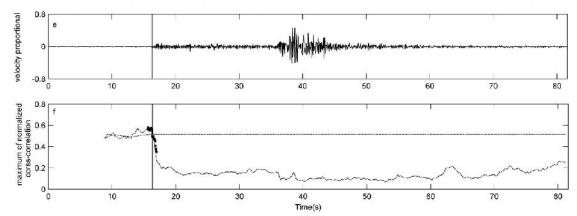
A Review of Frequently used Seismic P Wave Detection and Picking Algorithms





Different seismic detection algorithms are compared in order to evaluate their performance and to choose the most suitable one for a specific application. The comparison helps to have a complete understanding of their characteristics and enables users to choose the most appropriate algorithm for their specific needs, taking into account factors such as accuracy, robustness, efficiency, reliability and adaptability. The most commonly used techniques include:

- Amplitude/energy threshold
- Cross-correlation
- Frequency-based methods
- Machine learning



The performance of automatic phase detection algorithms can vary depending on factors such as signal-to-noise ratio, source-receiver geometry, and seismic waveform complexity.