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Title of Poster Presentation: Multiple Objective Simulated Annealing applied to Seismic Waveform modeling in the Baikal Rift.

Abstract:
The Baikal Rift region is geologically complicated. The rift, an archean craton, and 6km of sediment in the Baikal Lake influence seismic paths. This structure requires modeling of seismic waveforms that will focus on finding an optimal solution efficiently. This research has two components, solving the wave equation using a discrete wavenumber integration technique and a discussion of Multiple Objective Optimization and Simulated Annealing.

The eventual goal is to model six events recorded from along the Rift axis at Talaya (TLY) in Russia at distances ranging from 400-1300 km using such parameters as phase timing and amplitude as well as a point-to-point comparison of the wave shape.