

Menu entry Plane Wave

Computes slowness and back azimuth from coherent phase picks. It uses all phases of the name given in the [phase dialog box](#). It assumes that the incoming wavefront of that phase is a plane wave. This algorithm is therefore applicable only if the epicentral distance is much larger than the aperture of the recording array and if the dominating frequencies of the picked signal are in a range where coherency is still possible (i.e. similar waveforms on the recording array). To check the validity of this assumption is in the responsibility of the user. Violation of these presuppositions may lead to nonsense results.

The algorithm determines the best fitting orientation of the wave plane and parameterizes it by slowness and back-azimuth. The resulting values are written to the analysis parameter box?. Check the results with command [Beam](#).

This command needs the location of your recording stations in the station information file (see [How to put station information into SH/SHM](#)). Required entries are **lat** and **lon**, recommended is **xrel**, **yrel** and **array**. If the relative locations are not found in the file, SHM computes it from the latitude and longitude. The algorithm used is very simple might not be accurate enough.

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