Recommendations

We have shown that the systematic study of the dispersion characteristics of broadband Rayleigh and Love waves (20 - 250 s) across Eurasia can yield relatively uniform high resolution (~750 km resolution) dispersion maps and shear velocity models of the crust and lithosphere across the continent. ***Such models should prove to be extremely useful in improving regional location capabilities, and the technical means of incorporating such regional information into a more general 'Knowledge Base' need to be developed.***

This sort of study can be built upon to improve the accuracy and resolution of regional models in the following ways:

(1) ***Focused dispersion studies of intermediate period surface waves****, such as our companion study in Central Asia, should be applied in other well instrumented, seismically active areas of strategic interest, such as the* ***Middle East and the Far East****.*

(2) Dispersion map inversion methods should be generalized to model ***more realistic ray paths incorporating lateral refractions*** *through the imaged structures (in an iterative way).*

(3) ***Body wave studies*** *(e.g, Pn, Pnl, and receiver function) can be used to complement the dispersion information by enhancing resolution in certain regions of the model.*