



## **Elasticity tensors symmetry analysis using R**

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In this contribution we present orientation and class classification analysis of few full elasticity tensors obtained from seismic measurements. All computations were performed in R environment using both regular and custom made modules. All necessary tensor rotations were performed using quaternions and all optimization procedures were done using global optimization methods. First of all distances to all symmetry classes were optimized and compared using many different norms (e.g. Frobenius, operator etc.). Then we used MC method to analyse measurement errors impact on obtained results. In the last step of this project we presented some consideration regarding the possible methods of most probable symmetry class determination.

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