

allows very rapid determination of the final strain ellipse using widely spread hardware and software. It will be compared to other methods, and restrictions and precision of the method will be discussed.

The research of folding mechanism in the linear structures of the Greater Caucasus

F. L. Yakovlev
(Laboratory of tectonophysics, Institute of Physics of the Earth, Russian Academy of Science, Moscow, Russia)

The main features of folding process may be understood by comparison of natural fold systems and results of modelling. The two methods of such comparison are offered. The first method uses mathematic model, which combines mechanism of convection in sediments cover and mechanism of cover contraction. This model numerically generates some structural features. The reliability of

this method is showing by study of two kinds of experimental models which has either convective type of movement only or shortening. This method showed that the structures of Greater Caucasus has complex folding mechanism, which joints the noticeable part of convection and nearly double shortening. The second method uses three scattering diagrams of structural features: fold axial surface inclination, fold envelope inclination, shortening dimension. These features were measured in parts of the same natural profiles. Points of these estimates gave a good outlined areals on the 'x-y' diagrams. The similarly constructed points areals of the six experimental models were compared to the natural ones. The points areals of mathematic model jointed both convection and reduction are in best correspondence with areals of the natural structures, similar to the result of the first method research.

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