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INVERSE STRUCTURAL STATES OF THE STOCHASTIC DEFORMATION FIELD OF FRACTAL DISLOCATION

New structural states of fractal dislocation are investigated on the basis of fractional calculation theory and Hamilton operators. In order to describe the behaviour of the stochastic deformation field of a fractal dislocation within the framework of the statistical approach, average complex functions are introduced. Numerical modelling of the complex deformation field behaviour is fulfilled on a rectangular discrete lattice. It is shown that for inverse (with a negative fractal index) states of a fractal dislocation, there is an interval of change of this index with anomalous behaviour of the deformation field: there is no effective attenuation within the interval. The introduced functions allow to educe the presence of quantum and unusual statistical properties of the deformation field.