

**An Efficient Algorithm of the Reconstruction of Spatial Field with the Use of the Data Determinated at the Region Boundary**, D. BARANOV, A. BELOV, V. KASHIKHIN, E. LAMZIN, Yu. SEVERGIN, N. SHATIL, S. SYTCHEVSKY - The method of the reconstruction of spatial field meeting the Laplace equation with the use of the data measured at the region boundary is well known. In this paper an algorithm of the field reconstruction in a region with rather arbitrary boundary on the base of the program package KOMPOT using the finite element method is considered. It is essential for this method the use of an interpolation procedure of smoothing the data measured of the region boundary as well as a recovery of missed points. For a model task closed to a real one errors and an accuracy of the field reconstruction are analysed. The developed package can be practically used at any PC.