

**Modeling Flat Fields, created by Smooth Poles,**  
A.O. MYTSYKOV, Kharkov Inst. of Physics & Technology - In work the opportunity of construction of sources of flat fields with the help of structures of poles formed by smooth curves is considered. The conformal map of area  $0 < \text{Im}(z) < H$  on a strip with any bounds without intermediate map to a half-plane is received. The communication of factors of decomposition of a field in a Taylor series with parameters of conformal map realizing required distribution of a field is determined. The influence of various sites of a structure of a pole on distributions of a field is analysed. On the basis of the received analytical expressions connecting the form of a pole with a field, the construction of a structure of a pole is analysed. The received results were used in the computer program for synthesis of the pole shape on required distribution of a field.