# ON THE SOLUTION OF VECTORIAL RADIATIVE TRANSFER EQUATION IN ARBITRARY THREE-DIMENSIONAL TURBID MEDIUM WITH ANISOTROPIC SCATTERING

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ABSTRACT. The authors developed a numerical method of the boundary-value problem solution in the vectorial radiative transfer theory applicable to the turbid media with an arbitrary three-dimensional geometry. The method is based on the solution representation as the sum of the small angle approximation containing all the singularities of the exact solution, and a smooth part. The smooth part of the solution is found numerically by the method of iterations with the separation of the medium into the meshes. The knots of the mesh keep the discrete ordinates of the radiance angular distribution. The smooth part of the solution contains a small number of the spherical harmonics even for a strong anisotropic scattering.