Scattering polarization and Hanle effect in weakly anisotropic media R. Manso Sainz

The transfer of polarization in a scattering atmosphere that has horizontal inhomogenities on opacity and source function is extremely complicated and computationally demanding because it is highly non-linear, non-local and multidimensional. But if the horizontal inhomogenities are not too strong, the problem can be linearized. Then, 2D and 3D transfer problems may be reduced to much simple and manegable plane-parallel cases which can be easily solved using well-known techniques. I shall show present the linearization process and results of such treatment.

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