Calculations of three-dimensional stationary flows in lower parts of the tornado and of the tropical cyclone of middle intensity

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The three-dimensional non-stationary flows of ideal polytropic gas are mathematically designed in the conditions of action of gravity and Coriolis. For the system of equations of gas dynamics the initial-regional is put task, the decision of that describes a flow arising up at the smooth flow of gas through a surface vertical cylinder of the set nonzero radius in the vicinity of impenetrable plane of \( z = 0 \). It is well-proven that this task also is the characteristic Cauchy of standard kind problem and, on condition of analyticity of the initial datas, it has an only analytical decision. The analysis of the first coefficients of row showed on the degrees of \( z \), that at beginning of radial flow into a cylinder at once there is circuitous motion of gas, involute in the North hemisphere in positive direction and in negative direction for the case of the South hemisphere. For the design of three-dimensional non-stationary underflow of such natural whirlwinds as a tornado and tropical cyclones are used initial segment of row, a questioner this analytical decision. The coefficients of initial segments of rows are numeral built at the decision of the corresponding systems of hyperbolic type.