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**A SOLUTION CLASS OF THE EULER EQUATION IN A TORUS WITH
SOLENOIDAL VELOCITY FIELD. III**

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We continue the study of the problem on the existence conditions for solenoidal solutions of the Euler equation in a torus D with respect to a pair (\mathbf{V}, p) of vector and scalar fields such that the lines of the vector field \mathbf{V} have a simple structure, coinciding with parallels and meridians of toroidal surfaces that are concentrically embedded in D . Here, in contrast to the previous two papers, the right-hand side of the Euler equation, i.e., the vector field \mathbf{f} in D , is not given in a special form but is considered to be arbitrary.

Keywords: scalar and vector fields, Euler equation, divergence, curl.

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