AN OPTIMAL BOUNDARY CONTROL PROBLEM
FOR THE MOTION EQUATIONS
OF POLYMER SOLUTIONS

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We study an optimal boundary control problem for stationary equations of a model of the motion of weakly concentrated water solutions of polymers. Sufficient conditions are obtained for the solvability of the problem. Some properties of the set of optimal solutions are established.

Key words and phrases: hydrodynamics, non-Newtonian fluid, polymer solutions, boundary control, optimal control, weak solution.

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