# About one macroscopic mathematical model of the traffic flow on a highway

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This introductory presentation will consider one macroscopic mathematical model that describes the traffic flow on the straight part of a road in one direction. This one-dimensional model is based on the postulates of continuum mechanics. It is assumed that key characteristics of the continuum medium are identified. The speed of the traffic flow and its density are defined as a solution of the initial-boundary value problem.

A brief survey of existing models will be presented, including the benefits and drawbacks associated with these models. A new statement of the problem will be presented and a way of solving it will be discussed. The outline will include theorems to be proved during the research.