

# **Management of Ecological Safety of Territorial Motor Transportation System on the Basis of Agent-Based Approach**

**N.V. Bakayeva, I.E. Chuev**

*State University – Educational Research Production Complex, Orel*

**Key words and phrases:** agent-based approach; biosphere compatibility; ecological safety; imitating model; management; natural-social-technical structure; territorial motor transportation system.

**Abstract:** The problem of management of ecological safety of territorial motor transportation system and creation of its formalized model is considered. As a conceptual framework to solve this problem we used the paradigm of the biosphere compatibility settlements, while methodological basis was agent-based approach, which is a new area of simulation. is used. The conceptual scheme of agent model of territorial motor transportation system was provided and its set-theoretic description was given. The results of modeling of separate scenarios of management and administrative decisions to predict an ecological situation in the urbanized territory caused by the influence of objects of motor transportation infrastructure were described.

---