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Computational Modeling the Spread of Viral Particles inside the Passenger Transport

Abstract: At the beginning of 2022 the pandemic caused by the SARS-CoV-2 coronavirus infection affected about 500 million people in all the countries. The source of infection were viruses exhaled with the respiratory droplets and aerosol dust during breathing, talking and coughing of an infected person. The activities aimed at combating and minimizing the consequences of coronavirus infection have led to promotion of scientific research in the fields of studying the processes of spreading the viral particles in the air, in indoor and transport ventilation and air conditioning systems; the filtration efficiency of masks; the effect of partitions, protective shields, etc. The report presents a mathematical model of spreading the viral particles in the utility vehicles.