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**Influence of cavitator shape on projectile penetration process in soil media** ANNA DAURSKIKH, VLADISLAV VELDANOV, Bauman Moscow State Technical University — Standoff pins (cavitators) with smaller diameter than the projectile can be used to reduce the drag during the motion in soil media due to formation of a cavity. Cavity geometry is defined by the cavitator shape, its material and impact conditions. Combination of these factors was investigated numerically, and influence of the cavitator shape on the projectile deceleration was studied. In particular, velocities up to 1000 m/s and different angles of attack were considered. Features of projectile stability and its interaction with the walls of the cavity were examined. Additionally, experimental investigations were carried out.

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