
Plane problem of the elastic collision of the body with an obstacle

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The article deals with the plane problem of the elastic collision of the body on a rough surface within the Newton model of impact (stereomechanical model of impact). The nature of movement of the body after hitting depends on the collision point relative to the center of the body mass, as well as the moment of inertia of the body, recovery coefficient, friction and velocity coefficient of the body contacting with the surface (or velocity of the body mass center and its angular velocity) before the collision. The paper provides the corresponding graphical interpretation.

Keywords: collision, dry friction, stereomechanical model.

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