

**THREE-DIMENSIONAL NUMERICAL MODELING OF
DEVELOPMENT OF THE INSTABILITY OF THE
CONTACT SURFACE OF COLLIDING METALLIC PLATES
IN GAS DYNAMICS APPROACH**

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The work presents the results of the numerical modeling of the development of the instability of the contact surface of colliding metallic plates. Mathematical model is based on the Euler system of equations for the medium with two-terms equation of state. Parameters of the equation of state are calibrated using experimental and numerical data based on the real wide-range equations of state for the metals. Numerical algorithm is based on the Harten-Lax-van Leer scheme. Initial sinusoidal disturbance of the contact boundary between the plates after the rarefaction waves passing from the free boundaries of the plates obtained crater-shaped form. The fact qualitatively corresponds to the natural experiments.