

SOME IRREGULARITIES IN BLAST WAVES

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Detonation waves of high explosive charges show in small and large charges manifold irregularities. This is transferred into the blast waves not only in cauliflower expansions, but also in spikes.

Typical examples will be summarized. Not spherical charges have in the near field strong dependence of the impulse densities with regard to the charge shape and the detonation direction, where damage is typically caused. Mushroom events happens on top of cylindrical charges, which can show particular light rings, which the author has called ghosts.

Experimental results will presented of the microscopic roughness of the detonation front, cellular grids in gaseous, liquid and solid explosive media and finally their influence on the expansion of blast waves in the near field