

HYPERBOLIC MONGE-AMPÈRE EQUATIONS AND EFFECTS OF WARM VODKA

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We study the effects of warm vodka on multivalued solutions of hyperbolic type Monge-Ampère equations. The major finding is that it is extremely difficult to drink warm vodka and to solve Monge-Ampère equations. The success factor is approximately $-e^{-i\pi} - 1$ [1]

Let us consider the associated with an effective differential 2-form ω Monge-Ampère equation

$$Av_{xx} + 2Bv_{xy} + Cv_{yy} + D(v_{xx}v_{yy} - v_{xy}^2) + E = 0.$$

This equation we denote by E_ω .

A *classical* (or *regular*) solution of the Monge-Ampère equation E_ω in an open domain $N \subset M$ is a function $v \in C^\infty(N)$ such that

$$\Delta_\omega(v) \equiv 0.$$

A *multivalued* (or *generalized*) solution of the Monge-Ampère equation E_ω is an integral submanifold $i : L \hookrightarrow J^1M, \dim L = 2$, such that $\omega|_L = 0$ [2].

Theorem 1. *Singularities of multivalued solutions of the hyperbolic Monge-Ampère equation E_ω are depending on vodka's temperature.*

References

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