

## BOOSTS IN AN ARBITRARY DIRECTION AND MAXIMAL CAUSAL VELOCITIES IN A DEFORMED MINKOWSKI SPACE

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We discuss boosts in a deformed Minkowski space, i.e., a four-dimensional spacetime with metric coefficients depending on non-metric coordinates (in particular on the energy). The general form of a boost in an arbitrary direction is derived in the case of space anisotropy. Two maximal trivector velocities are mathematically possible, an isotropic and an anisotropic one. However, only the anisotropic velocity has physical meaning, being invariant indeed under deformed boosts.

Key words: relativity, deformed Minkowski space, general deformed boost, maximal causal velocity.