Mathematical Physics

Bianchi type II,III and V diagonal Einstein metrics re-visited

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We present, for both minkowskian and euclidean signatures, short derivations of the diagonal Einstein metrics for Bianchi type II, III and V. For the first two cases we show the integrability of the geodesic flow while for the third case a somewhat unusual bifurcation phenomenon takes place: for minkowskian signature elliptic functions are essential in the metric while for euclidean signature only elementary functions appear.

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