

Abstract

We will first survey the theory of globally hyperbolic flat spacetimes due to Geoffrey Mess, with emphasis on the notion of regular domains in the Minkowski space and foliations of such domains by hypersurfaces of constant Gauss-Kronecker curvature. We then explain a joint work with Andrea Seppi which generalizes the theory to the setting of affine differential geometry. The technical core consists of improvements of the results of An-Min Li, Udo Simon and Bohui Chen on a real Monge–Ampère equation .