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Foliations by crooked planes.

Crooked planes are used to bound fundamental domains for the actions of *affine Schottky groups*; these are groups of Lorentzian isometries of R^3 , whose linear parts are purely hyperbolic. One might wonder how "flexible" crooked planes may be : for instance, can we use them to foliate R^3 , or subsets of R^3 (fundamental domains, in particular)?

Given a regular curve in Minkowski spacetime, we describe necessary and sufficient conditions for this curve to support a family of pairwise-disjoint crooked planes. Using this criterion, we describe crooked foliations along orbit curves of one-parameter groups of Lorentzian isometries. (Received July 17, 2016)