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Título: Points And Curves In The Monster Tower

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Sinopsis

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Cartan introduced the method of prolongation which can be applied either to manifolds with distributions (Pfaffian systems) or integral curves to these distributions. Repeated application of prolongation to the plane endowed with its tangent bundle yields the Monster tower, a sequence of manifolds, each a circle bundle over the previous one, each endowed with a rank 2 distribution. In an earlier paper (2001), the authors proved that the problem of classifying points in the Monster tower up to symmetry is the same as the problem of classifying Goursat distribution flags up to local diffeomorphism. The first level of the Monster tower is a three-dimensional contact manifold and its integral curves are Legendrian curves. The philosophy driving the current work is that all questions regarding the Monster tower (and hence regarding Goursat distribution germs) can be reduced to problems regarding Legendrian curve singularities.

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