

**AN INTRODUCTION TO EXTERIOR DIFFERENTIAL
SYSTEMS AND AN APPLICATION TO SOLITON
SOLUTIONS OF THE MEAN CURVATURE FLOW**

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ABSTRACT. In this talk I will introduce exterior differential systems (EDS) and the notion of an integral manifold. I will show that there is an EDS of special type, a so-called Monge–Ampère system, whose integral manifolds locally correspond to initial hypersurfaces of soliton solutions of the mean curvature flow. I will give the necessary and sufficient conditions for this system to be equivalent to a Monge–Ampère system governing minimal hypersurfaces.