

## **Marcos Dajczer**

Title: Hypersurfaces of prescribed mean curvature in manifolds with a Killing field.

Abstract:

This is a survey talk on recent work on the subject of the title. The more recent results are contained in the following joint papers:

An extension of a theorem of Serrin to graphs in warped products. *J. Geom. Anal.* 15 (2005), 193--205. (With J. Ripoll)

Normal geodesic graphs of constant mean curvature. *J. Diff. Geometry* 75 (2007), 387--401. (With L. Alías)

The Dirichlet problem for CMC surfaces in Heisenberg space. *Calc. Var. Partial Diff. Equations* 30 (2007), 513--522. (With L. Alías and H. Rosenberg)

Constant mean curvature graphs in a class of warped product spaces. *Geometriae Dedicata* 131 (2008), 173--179. (With L. Alías.)

Killing graphs with prescribed mean curvature. To appear in *Calc. Var. Partial Diff. Equations*. (With P. Hinojosa and J. H. de Lira)

Killing graphs with prescribed mean curvature and Riemannian submersions. To appear in *Annales de l'Institut Henri Poincaré - Analyse non linéaire*. (With J. H. de Lira)