

GEOMETRY SEMINAR

Uniqueness of the $[\varphi, \vec{e}_3]$ -catenary cylinders by their asymptotic behaviour**Antonio Luis Martínez-Triviño**

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Abstract. We establish a uniqueness result for the $[\varphi, \vec{e}_3]$ -catenary cylinders by their asymptotic behaviour. Well known examples of such cylinders are the grim reaper translating solitons for the mean curvature flow. For such solitons, F. Martín, J. Pérez-García, A. Savas-Halilaj and K. Smoczyk proved that, if Σ is a properly embedded translating soliton with locally bounded genus, and \mathcal{C}^∞ -asymptotic to two vertical planes outside a cylinder, then Σ must coincide with some grim reaper translating soliton. In this talk, applying a strong maximum principle for elliptic operators, we increase the family of $[\varphi, \vec{e}_3]$ -minimal graphs where these types of results hold under different assumption of asymptotic behaviour. This is a joint work with J. P. dos Santos (UnB).