

## ΠΑΝΕΠΙΣΤΗΜΙΟ ΙΩΑΝΝΙΝΩΝ



## ΤΜΗΜΑ ΜΑΘΗΜΑΤΙΚΩΝ

Εβδομαδιαίο Σεμινάριο

## On a spherical Bernstein theorem by B. Solomon

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Joint work with Jürgen Jost: A result of B. Solomon "On the Gauss map of an area-minimizing hypersurface, Journal of Differential Geometry, 19, 221-232 (1984)" says that a compact minimal hypersurface  $M^k$  of the sphere  $\mathbb{S}^{k+1}$  with  $H_1(M)=0$ , whose Gauss map omits a neighborhood of an  $\mathbb{S}^{k-1}$  equator, is totally geodesic in  $\mathbb{S}^{k+1}$ . In this talk, I will present a new proof strategy for Solomon's theorem which allows us to obtain analogous results for higher codimensions. If time permits, we sketch the proof for codimension 2 compact minimal submanifolds of  $\mathbb{S}^{k+1}$ .