Oberseminar
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie

Am Donnerstag, den **06.06.2024** spricht um **14 Uhr s.t.** im Raum **S9 (C6H05) und über Zoom**

Dr. Fernanda Roing
(University of Turin)

über das Thema

Sharp pinching theorems for submanifolds in the sphere

We prove that every complete, minimally immersed submanifold $f : M^n \to S^{n+p}$ whose second fundamental form satisfies $|A|^2 \leq \dfrac{np}{2p1}$, is either totally geodesic, or (a covering of) a Clifford torus or a Veronese surface in S^4, thereby extending the well-known results by Simons, Lawson and Chern, do Carmo & Kobayashi from compact to complete M^n. We also obtain the corresponding result for complete hypersurfaces with nonvanishing constant mean curvature, due to Alencar & do Carmo in the compact case, under the optimal bound on the umbilicity tensor. Our approach is inspired by the conformal method of Fischer-Colbrie, Shen & Ye and Catino, Mastrolia & Roncoroni. This is a joint work with M. Magliaro, M. Mari and A. Savas-Halilaj.

Den Zoom-Link erhalten Sie per E-Mail von Frau Martina Neu.

For participating online, please sign up by sending an email to Martina Neu.

Hierzu wird herzlich eingeladen.

Carla Cederbaum, Gerhard Huisken, zusammen mit Jan Metzger (Potsdam)