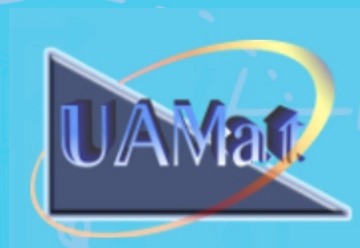**Universidade Federal de Campina Grande**
Centro de Ciências e Tecnologia
1 Escola de Inverno em Geometria DIferencial

Título: "(r,k,a,b)-Stability of hypersurfaces in space forms"

Palestrante: Prof. Dr. Arlandson Matheus

Resumo: In a Riemannian space form, we define the (r, k, a, b)-stability concerning closed hypersurfaces, where r and k are entire numbers satisfying the inequality $0 \leq k < r \leq n - 2$ and a and b are real numbers (at least one nonzero). In this context, when $b = 0$, we provide a characterization of the geodesic spheres as critical points of the Jacobi functional associated with the notion of $(r, k, a, 0)$-stability. Moreover, in the case $b \neq 0$, by supposing that a hypersurface Σ^n is contained either in an open hemisphere of the Euclidean sphere or in the Euclidean space or in the hyperbolic space, and considering some appropriate restrictions on the constants a and b, we are able to show that Σ^n is (r, k, a, b)-stable if, and only if, Σ^n is a geodesic sphere.

Data: 17 de Setembro de 2020 (Quinta Feira)
Link: meet.google.com/eeg-jdes-mew
Data: 10:00

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