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CMM PDE Seminar

Speaker: Almir Silva Santos, Universidade Federal de Sergipe, Brasil.

Title: "Blow-up Analysis of Large Conformal Metrics With Prescribed Gaussian And Geodesic Curvatures"

Abstract: In this talk, we consider a compact Riemannian surface (M,g) with nonempty boundary and negative Euler characteristic. Given two smooth non-constant functions f in M and h in the boundary of M with max f = max h = 0, under a suitable condition on the maximum points of f and h, we prove that for sufficiently small positive constants λ and μ, there exist at least two distinct conformal metrics g_{λ,μ}=e^{2u_{μ,λ}}g and g^{λ,μ}=e^{2u^{μ,λ}}g with prescribed sign-changing Gaussian and geodesic curvature equal to f+μ and h+λ, respectively. Additionally, we employ the method Borer et al. (2015) used to study the blowing up behavior of the large solution u^{μ,λ} when μ↓0 and λ↓0. This is joint work with R. Caju (Universidad de Chile) and T. Cruz (UFAL).

Venue: DIM seminar room, Beauchef 851, 5th floor.

Monday, October 28th at 12:10 pm.

Zoom: https://uchile.zoom.us/j/96642349167?pwd=MkRVbWxzOFBUUXlCTWFicW0reWZ6dz09

For further information, see our webpage: **https://eventos.cmm.uchile.cl/pdeseminar/**