Oberseminar Analysis/Geometrie/Topologie

## **Splitting Principles in Scalar Curvature**

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Abstract:

We indicate the proof of the following type of results based on hyperbolic unfoldings: Let  $(M^{n+1},g)$ , n>2, be a smooth, compact Riemannian manifold with positive scalar curvature and  $\alpha$  in  $H_n(M; Z)$ . Then, there is a **smooth** compact hypersurface  $H^n\subset M^{n+1}$  that represents  $\alpha$  and admits a **smooth** positive scalar curvature metric.

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