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A strong minimax property of nondegenerate minimal submanifolds. (English)

Zbl 0808.49037

J. Reine Angew. Math. 457, 203-218 (1994).

If N is a Riemannian manifold and M is smooth compact submanifold (with or without boundary) that is stationary and strictly stable for the area functional, we show that there is an open subset U of N containing M such that M has less area than any other surface in U that is homologous (in U) to M . Similarly, if M is unstable but has nullity 0, then it is the unique solution of a certain minimax problem in an open set $U \subset N$. The theorems also hold when area is replaced by other parametric elliptic functionals.

Reviewer: B.White (Stanford)

MSC:

[49Q20](#) Variational problems in a geometric measure-theoretic setting

[53A10](#) Minimal surfaces in differential geometry, surfaces with prescribed mean curvature

Cited in **2** Reviews

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Keywords:

Riemannian manifold; minimax problem

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