

BIHARMONIC SUBMANIFOLDS IN EUCLIDEAN SPHERES

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Biharmonic maps between Riemannian manifolds represent a natural generalization of harmonic maps. In particular, a Riemannian immersion into a Euclidean space is a biharmonic map if and only if it is biharmonic in the sense of Chen. In this presentation we shall survey old and new results on biharmonic submanifolds in Euclidean spheres. We shall present classification results for biharmonic hypersurfaces (according to the number of distinct principal curvatures) and biharmonic submanifolds with parallel mean curvature vector field.