

1135-53-794

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Min-max theory for constant mean curvature hypersurfaces.

We describe the construction of closed constant mean curvature (CMC) hypersurfaces using min-max methods. In particular, our theory allows us to show the existence of closed CMC hypersurfaces of any prescribed mean curvature in any closed Riemannian manifold. This work is joint with Xin Zhou. (Received September 14, 2017)