

## **A convergence result for a fourth order gradient flow in riemannian manifolds**

**Annibale Magni**

Westfälische-Wilhelms Universität Münster, Germany  
[magni@uni-muenster.de](mailto:magni@uni-muenster.de)

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I will present some results about the gradient flow of the  $L^2$ -norm of the second fundamental form of smooth immersions into Riemannian manifolds. Under suitable conditions on the initial data and on the Riemannian ambient manifold, I will show some long time existence and convergence results. Applications to the Willmore flow in Riemannian manifolds will also be given.