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## Transversality for the heat flow

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Given a closed Riemannian manifold  $M$ , we construct a suitable class of perturbations to achieve Morse-Smale transversality for the heat equation.

The heat equation is a parabolic PDE for maps from the cylinder to  $M$  which arises as the negative  $L^2$  gradient equation of the Riemannian energy functional and the perturbations take the form of smooth functions on the free loop space of  $M$  satisfying certain axioms.

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