Abstract Submitted for the MAR12 Meeting of The American Physical Society

String method for the computation of minimum energy paths and saddle points WEIQING REN, National University of Singapore and IHPC — Many problems arising from applied sciences can be abstractly formulated as a system that navigates over a complex energy landscape of high or infinite dimensions. The system is confined in metastable states for long times before making important transitions from one metastable state to another. For gradient systems driven by small noise, the transitions follow the minimum energy path, i.e. the heteroclinic orbit connecting the metastable states. I will talk about the zero-temperature string method for computing the minimum energy paths and the saddle points.

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Date submitted: 04 Nov 2011

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