

Lyapunov graphs for circle valued Morse functions

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July 23, 2014

Abstract

Within the context of Novikov theory, the Conley index is used to obtain results for circular Morse flows on compact n -manifold. Examples are provided for orientable and non-orientable surfaces via a complete characterization of circular Morse digraphs. A generalization of these results is presented for smooth flows associated to circle valued Lyapunov functions.

*Partially supported by CNPq under grant 302592/2010-5 and by FAPESP under grant 2012/18780-0.

†Supported by CNPq under grant 141717/2012-2

‡Supported by FAPESP under grant 2012/24249-5.

§Wishes to thank the French-Brazilian Agreement CNRS-CNPq for support.