RECONSTRUCTING THE DYNAMICS VIA DYNAMICAL CHARTS FROM A SEQUENCE OF NEAR-PARABOLIC OR CYLINDER RENORMALIZATION

MITSUHIRO SHISHIKURA

For germs of irrationally indifferent fixed points of analytic functions, one can define a cylinder renormalization by taking first return map to a certain fundamental domain. We discuss how to reconstruct the original dynamics from a sequence of cylinder renormalization. When there is a priori bounds for the sequence such as near-parabolic renormalization for high type rotation numbers, this reconstruction can be carried out with some bounds. We also discuss how to extend this for a more general type of a priori bounds.