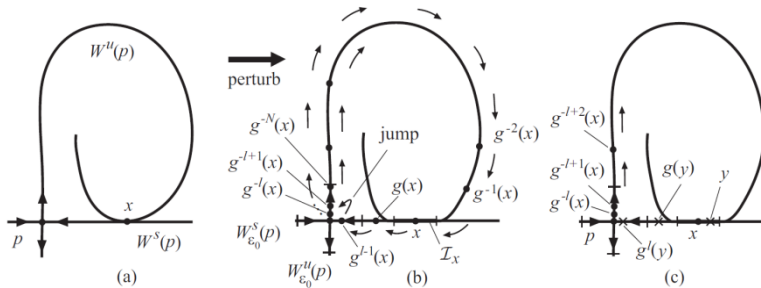
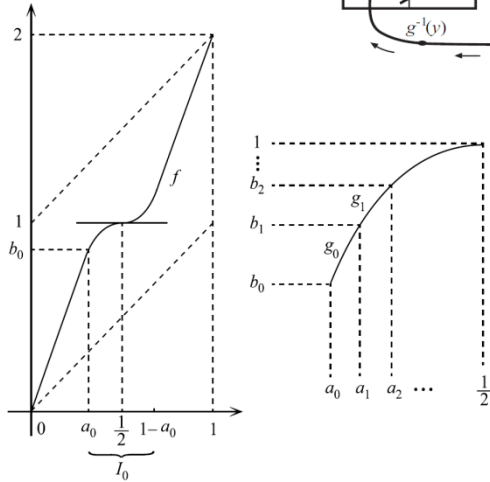
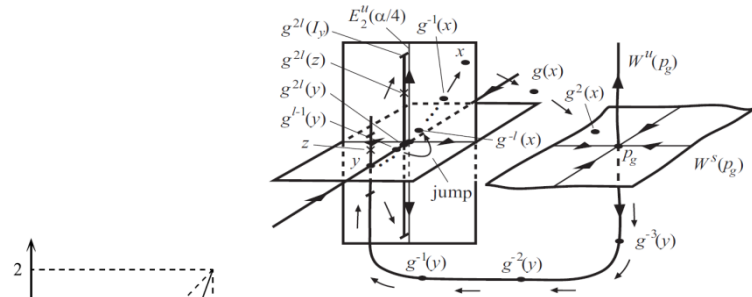




Differential structure and topological properties

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Content:

The relation between differential structure and topologic properties that the maps on the closed manifold has are studied for a long time, and there is much result. For example, the relationship between uniformly hyperbolic properties and expansive properties and shadowing properties, non-uniformly hyperbolic properties is a hyperbolic of partially hyperbolic and dominated splitting and the phase shift of the relationship. Recently, a new concept that the topological nature was recaptured from the measure theory point of view, such as expansion of and follow-up property can be considered, it has been investigated the relationship between the set with a uniform hyperbolicity. Although research the current has remained on the relationship between the uniformly hyperbolic properties are expected to lead the relationship between non-uniformly hyperbolic properties by adding the viewpoint of measure theory.

In this study, it is intended that I check the relations with these properties for the meeting having non-uniformly hyperbolic properties in addition to the uniformly hyperbolic properties. Particularly, I think that I can find the connection of a gauging theory-like property and a topologic property by clarifying the topologic property that the one Pesin set of the meeting having non-uniformly hyperbolic properties has.

Keywords : hyperbolic structure, stability, Pesin set

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