1108-37-142   **Boris Kalinin*** (`kalinin@psu.edu`) and **Victoria Sadovskaya** (`sadovskaya@psu.edu`).
Holonomies and cohomology for cocycles over partially hyperbolic diffeomorphisms.

We consider group-valued cocycles over a partially hyperbolic diffeomorphism which is accessible volume-preserving and center bunched. We study cocycles with values in the group of invertible continuous linear operators on a Banach space. We describe properties of holonomies for fiber bunched cocycles and establish their Holder regularity. We also study cohomology of cocycles and its connection with holonomies. We obtain a result on regularity of a measurable conjugacy, as well as a necessary and sufficient condition for existence of a contionuous conjugacy between two cocycles. (Received January 08, 2015)