

We introduce the notion of conformal De Rham complex of a Riemannian manifold and its cohomology that we call (quasi)conformal de Rham cohomology. It is a special (quasi)conformally invariant case of De Rham complexes associated with so-called $L_{q,p}$ -cohomology. The conformal De Rham complex is a graded differential Banach algebra. If the (quasi)conformal cohomology are different for two manifolds then does not exist a quasiconformal homeomorphism between these two manifolds. Calculations of the conformal cohomology are not a simple task but some examples of these calculations will be demonstrated.

1. V. Goldshtein, M. Troyanov, The $L_{p,q}$ cohomology of SOL. Ann. Fac. Sci. Toulouse 7, 687 – 689 (1998).
2. Gol'dshtein, Vladimir; Troyanov, Marc, A conformal de Rham complex. J. Geom. Anal. 20, no. 3, 651 – 669 (2010).