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Sergey Arkhipov* (hippie@math.toronto.edu), 40 St. George street, Toronto, ON. *2-gerbes and 2-Tate spaces.*

We construct a central extension of the group of automorphisms of a 2-Tate vector space viewed as a discrete 2-group. This is done using an action of this 2-group on a 2-gerbe of gerbel theories. This central extension is used to define central extensions of double loop groups. The possible relations to double loop Lie algebras is discussed. (Received February 14, 2008)