1063-37-116   **Uri Bader**, **Alex Furman*** (`furman@math.uic.edu`) and **Roman Sauer**. *Rigidity of hyperbolic lattices in the framework of integrable measure equivalence.*

A restricted notion of measure equivalence between finitely generated groups is considered, one in which rearrangement cocycles are assumed to be integrable. In this framework of integrable measure equivalence new invariants and rigidity results are proven.

In particular for fundamental groups of negatively curved closed manifolds the dimension and the simplicial volume are shown to be invariants. For lattices in rank one groups SO(n,1) with n>2, and for surface groups, strong rigidity results are proven, analogous to those known for higher rank lattices.

The proofs use homological methods, a cocycle generalization of Mostow rigidity, and Milnor-Wood-Ghys phenomena for surface groups case. (Received August 11, 2010)