

Global rigidity for toral automorphisms.

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We discuss the problem of regularity of a conjugacy between a toral automorphism L and a diffeomorphism f that is not assumed to be close to L . For a weakly irreducible hyperbolic L we show that any C^1 conjugacy is C^∞ . For a weakly irreducible ergodic partially hyperbolic L we show that any $C^{1+Holder}$ conjugacy is C^∞ .

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