
MARTIN PINSONNAULT, Fields Institute & University of Toronto

Maximal Tori in the Hamiltonian groups of 4-manifolds

Let (M, ω) be a symplectic 4-manifold. Let Symp be its group of symplectomorphisms and denote by Ham its subgroup of Hamiltonian diffeomorphisms. Let \mathcal{M} be the set of maximal tori in Ham and let \mathcal{T} be the subset of 2-dimensional tori. Both Symp and Ham act by conjugation on \mathcal{M} and \mathcal{T} . We will explain why the quotient space \mathcal{M}/Symp is finite, and describe what the finiteness of \mathcal{T}/Ham would imply for the homotopy type of Symp .