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Mehrdad Kalantar* (kalantar@math.uh.edu). *Topological π -boundary actions.*

For each unitary representation π of a discrete group Γ we introduce a notion of topological π -boundary actions of Γ . We call the universal π -boundary, which is a unital invariant C^* -subalgebra of $B(H_\pi)$ (and does always exist), the Furstenberg-Hamana boundary of π . We show that this boundary satisfies the natural properties that are expected. In the case of quasi-regular representations, the Furstenberg-Hamana boundary is commutative, hence of the form $C(X)$ for some compact Γ -space X , which should be thought of the “Furstenberg boundary of the quotient”. We give several applications and examples.

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