2–LOCAL ∗–LIE AUTOMORPHISMS OF SEMI–FINITE FACTORS

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Abstract. Let $\mathcal{M}$ be a semi-finite von Neumann algebra factor on a complex Hilbert space H with dimension greater than 3. Then every surjective 2-local ∗-Lie automorphism Φ of $\mathcal{M}$ is of the form $\Phi = \Psi + \tau$, where Ψ is a ∗-automorphism or the negative of a ∗-anti-automorphism of $\mathcal{M}$, and τ is a mapping from $\mathcal{M}$ into $\mathbb{C}I$ vanishing on every sum of commutators.

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