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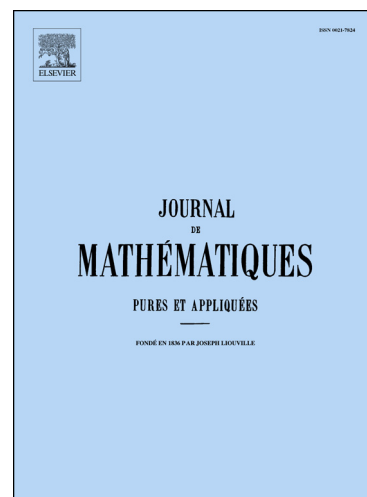
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TOPOLOGICAL INVARIANTS FOR SEMIGROUPS OF HOLOMORPHIC SELF-MAPS OF THE UNIT DISC

FILIPPO BRACCI[†], MANUEL D. CONTRERAS[‡], AND SANTIAGO DÍAZ-MADRIGAL[‡]

RÉSUMÉ. Soient $(\varphi_t), (\phi_t)$ deux semi-groupes à un paramètre d'endomorphismes holomorphes du disque unité $\mathbb{D} \subset \mathbb{C}$. Soit $f : \mathbb{D} \rightarrow \mathbb{D}$ un homéomorphisme. Nous montrons que si $f \circ \phi_t = \varphi_t \circ f$ pour tout $t \geq 0$, alors f s'étend à un homéomorphisme de $\overline{\mathbb{D}}$ en dehors des arcs de contact exceptionnels maximaux (en particulier, si l'on considère des semi-groupes elliptiques, f s'étend toujours à un homéomorphisme de $\overline{\mathbb{D}}$). En utilisant ce résultat, nous étudions les invariants topologiques pour les semi-groupes à un paramètre d'endomorphismes holomorphes du disque unité.

ABSTRACT. Let $(\varphi_t), (\phi_t)$ be two one-parameter semigroups of holomorphic self-maps of the unit disc $\mathbb{D} \subset \mathbb{C}$. Let $f : \mathbb{D} \rightarrow \mathbb{D}$ be a homeomorphism. We prove that, if $f \circ \phi_t = \varphi_t \circ f$ for all $t \geq 0$, then f extends to a homeomorphism of $\overline{\mathbb{D}}$ outside exceptional maximal contact arcs (in particular, for elliptic semigroups, f extends to a homeomorphism of $\overline{\mathbb{D}}$). Using this result, we study topological invariants for one-parameter semigroups of holomorphic self-maps of the unit disc.

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