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Preservation of geometric properties by a class of extension operators

We consider operators that extend locally univalent mappings of the unit disk Δ of $\mathbb{C}$ to locally biholomorphic mappings of the Euclidean unit ball B of $\mathbb{C}^n$. For such an operator Φ, we ask whether $\Phi(f)$ is a convex (resp. starlike) mapping of B whenever f is a convex (resp. starlike) mapping of Δ or whether $e^t\Phi\left(e^{-t}f(\cdot,t)\right)$, $t \geq 0$, is a Loewner chain on B whenever $f(\cdot,t)$, $t \geq 0$, is a Loewner chain on Δ. Answers will be provided for a class of operators that are perturbations of the well known Roper–Suffridge extension operator.