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Jerry R. Muir, Jr.* (muirj2@scranton.edu), Department of Mathematics, University of Scranton, Scranton, PA 18510. A Class of Loewner Chain Preserving Extension Operators. Preliminary report.

We consider operators that extend locally univalent mappings of the unit disk Δ in \mathbb{C} to locally biholomorphic mappings of the Euclidean unit ball B of \mathbb{C}^n . For such an operator Φ , we are interested in when $e^t \Phi(e^{-t}f(\cdot,t))$, $t \ge 0$, is a Loewner chain on B whenever $f(\cdot,t)$, $t \ge 0$, is a Loewner chain on Δ . We will discuss properties of these operators, in general, and will consider a particular collection of extension operators that are Loewner chain preserving under certain interesting conditions. (Received September 25, 2006)