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STARLIKENESS CONDITIONS FOR DIFFERENTIABLE OPEN MAPPINGS IN THE PLANE

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Abstract. We find starlikeness conditions for mappings defined on general simply connected domains $D \subset \mathbb{C}$. We extend results given by W.C. Royster [12], by P.T. Mocanu [8] for the unit ball and the results from [9], [10], [11] given for the ellipse. Our results improves the preceding theorems also by working with more general mappings, as the class of open, discrete mappings $f : D \to \mathbb{C}$, differentiable near ∂D and satisfying the differential condition $(*)$ near ∂D. This class of mappings is larger than the class of C^1 mappings $f : D \to \mathbb{C}$ satisfying condition $(*)$ on D, as is required in [8], [9], [10], [11], [12].

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Key words. Univalence and starlikeness, open, discrete mappings in plane.

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