

## TWO RADII FOR CERTAIN BAZILEVIČ MAPS

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ABSTRACT. The goal of this paper is the determination of the radii of two disks: (i) in which the solution of certain integral equation involving a function  $f \in B_n^\lambda(\beta)$  is in  $B_n^\lambda(\beta)$  and (ii) for which each function  $f \in B_n^\lambda(\beta)$  is  $\sigma$ - $n$ -spiral univalent.

### REFERENCES

- [1] Babalola, K. O., *New Insights into Bazilevič Maps*, An. Univ. Oradea Fasc. Mat. 23 (2016). 5–10.
- [2] Babalola, K. O., *New generalizations of Bazilevič maps*, J. Class. Anal. 8 (2016). 163–170.
- [3] Bernardi, S. D., *The radius of univalence of certain regular functions*, Proceedings of American Mathematical Society. **24**. No 2. (1970). 312–318.
- [4] Bazilevič, I. E., *On a class of integrability by quadratures of the equation of Loewner-Kufarev*, Mat. Sb. **37**, (1955) 471 -476 (Russian).
- [5] Caratheodory, C., *Theory of functions of a complex variable*, **II**. (1960). Chelsea Publishing Co. New York.
- [6] Livingston, A. E., *On the radius of univalence of certain regular functions*, Proceedings of American Mathematical Society. **17**. No 2. (1966). 352–357.
- [7] Macgregor, T. H., *Functions whose derivatives have positive real part*, Trans. Amer. Math. Soc. **104** (1962), 532–537.
- [8] Salagean, G. S., *Subclasses of univalent functions*, Lecture Notes in Math. **1013** (1983), 362–372. Springer-Verlag, Berlin, Heidelberg and New York.
- [9] Singh, R., *On Bazilevič functions*, Proceedings of the American Mathematical Society. **38**. No. 2. (1973). 261–271.

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