Geometric Function Theory in Several Complex Variables and Complex Banach Spaces

Cluj-Napoca, Romania

1-3 December 2022

## Norm estimates for some subclasses of Ma-Minda type functions

Teodor Bulboacă Babeș-Bolyai University, Cluj-Napoca, Romania

## Abstract

For certain subclasses of analytic function of Ma-Minda type functions defined by differential subordination we determine Pre-Schwarzian norm estimate and inclusion criteria. Also, using the Gronwall's inequality we give a sufficient condition for a normalized function to belong to a class of functions with bounded arguments that extends the class of strongly  $\alpha$ -Bazilevič functions of order  $\gamma$  studied in 1996 by Gao.

- Farzana, H.A., Jeyaraman, M.P., Bulboacă, T., Subordinations and norm estimates for functions associated with Ma-Minda subclasses. *Mathematics* 2022, 10(16), Article ID: 2879.
- 2. Gao, C. Fekete-Szegő problem for strongly Bazilevič functions. Northeast Math. J. **1996**, *12*, 469–474.
- 3. Kim, J.A.; Sugawa T. Geometric properties of functions with small Schwarzian derivatives. (preprint) Available online: http://www.cajpn.org/pp04/0403.pdf.
- 4. Kim Y.C.; Sugawa, T. Norm estimates of the pre-Schwarzian derivatives for certain classes of univalent functions. *Proc. Edinb. Math. Soc.* **2006**, *49*, 131–143.
- Ma, W.C.; Minda, D. A unified treatment of some special classes of univalent functions, In Proceedings of the Conference on Complex Analysis, Tianjin, China, 19–23 June 1992; Li, Z., Ren, F., Yang, L., Zhang, S., Eds.; International Press: Cambridge, MA, USA, 1994; pp. 157–169.