İSTANBUL ANALYSIS SEMINARS

VARIATIONS OF UNIVALENT HARMONIC MAPPINGS ONTO POLYGONS

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Abstract: The method of construction of a univalent harmonic mapping $f(z) = h(z) + \overline{g(z)}$ onto polygons [1] is used to apply variations on subclasses of harmonic mappings in order to study extremal problems. An example is given to show that harmonic Koebe mappings are extremal for the second coefficient problem of the analytic part $h(z)$.

References

[1] D. Bshouty, E. Lundberg & A. Weitsman, "A solution to Sheil-Small's harmonic mapping problem for polygons," *Proc. Amer. Math. Soc.*, forthcoming.

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