INVARIANTS OF INFINITE BLASCHKE PRODUCTS

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Dedicated to Professor Petru T. Mocanu

Abstract. The analytic continuation by symmetry with respect to the unit circle of infinite Blaschke products is studied and invariants of the restriction to some parts of the unit circle of these extended functions are obtained. Then analytic extensions of the respective invariants are constructed. The analogous results for infinite Blaschke products on the real projective plan are stated.

MSC 2000. 34C40.

Key words. Infinite Blaschke products, symmetry principle, groups of invariants, real projective plane.

REFERENCES

[1] Ahlfors, L.V., *Complex Analysis*, International Series in Pure and Applied Mathematics, 1979.

[2] Barza, I. and Ghisa, D., *Dynamics of Dianalytic Transformations of Klein Surfaces*, Mathematica Bohemica, **2** (2004), 129–140.

[3] Cao-Huu, T. and Ghisa, D., *Geometry and Iteration of Dianalytic Transformations*, Automation Computers Applied Mathematics, **13** (1) (2004), 49–53.

[4] Cao-Huu, T., Ghisa, D. and Muscutariu, F., *Dianalytic Transformations of Klein Surfaces and their Groups of Invariants*, The 10th International Conference on Applied Mathematics and Computer Science, Cluj-Napoca, 2006.

[5] Cassier, G. and Chalendar, I., *The Group of Invariants of a Finite Blaschke Product*, Complex Variables, **42** (2000), 193–206.

[6] Colwell, P, *Blaschke products*, The University of Michigan Press, 1985

[7] Frostman, O., *Sur les produits de Blaschke*, Kungl. Fysiogr. Sällsk. Lund Förh., **12** (1942), 169–182.

[8] Garnett, J. B., *Bounded Analytic Functions*, Academic Press 1981.

[9] Nehari, Z., *Conformal Mapping*, International Series in Pure and Applied Mathematics, 1951.

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