

## ON $p$ -TH ORDER OF A FUNCTION OF SEVERAL COMPLEX VARIABLES ANALYTIC IN THE UNIT POLYDISC

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*Abstract.* This paper is concerned with the study of the maximum modulus and the co-efficients of the power series expansion of a function of several complex variables analytic in the unit polydisc.

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### REFERENCES

- [1] D. BANERJEE, *On  $p$ -th order of a function analytic in the unit disc*, Proc. Nat. Acad. Sci. India **75(A)**, IV (2005), 249–253.
- [2] D. BANERJEE AND R. K. DUTTA, *Relative order of functions of two complex variables analytic in the unit disc*, J. Math. **1** (2008), 37–44.
- [3] D. BANERJEE AND R. K. DUTTA, *On  $p$ -th order of a function of two complex variables analytic in the unit polydisc*, Proc. Nat. Acad. Sci. India (Section-A) **81**, I (2011), 49–58.
- [4] R. K. DUTTA, *On order of a function of several complex variables analytic in the unit polydisc*, Journal of Information and Computing Science **6**, 2 (2011), 97–108.
- [5] O. P. JUNEJA AND G. P. KAPOOR, *Analytic Functions-Growth Aspects*, Pitman Advanced Publishing Program, 1985.
- [6] G. P. KAPOOR, *On the lower order of functions analytic in the unit disc*, Math. Japon. **17** (1972), 49–54.
- [7] G. R. MACLANE, *Asymptotic Value of Holomorphic Functions*, Rice University Studies: Houston, 1963.
- [8] D. SATO, *On the rate of growth of entire functions of fast growth*, Bull. Amer. Math. Soc. **69** (1963), 411–414.
- [9] L. R. SONS, *Regularity of growth and gaps*, J. Math. Anal. Appl. **24** (1968), 296–306.