

**Paper No: PU-SOE – Mathematics - 15**

**Uniqueness problem for differential polynomials of fermat-waring type**

**Rajeshwari S., Husna V.** and S. H. Naveen Kumar

Department of Mathematics, School of Engineering, Presidency University, Bengaluru560 064, India.

**Abstract**

In this paper, we discuss the uniqueness problem for differential polynomials  $(P^n(f))(k)$ ,  $(Q^n(g))(k)$  sharing the same values, where  $P = f^d + a_1 f^{d-m} + b_1 f^{d-m+1} + c_1$  and  $Q = g^d + a_2 g^{d-m} + b_2 g^{d-m+1} + c_2$  are polynomials of Fermat-Waring type. On non-Archimedean field,  $f$  and  $g$  are meromorphic functions.

**Keywords:**

Nevanlinna theory, non-archimedean meromorphic functions, FermatWaring polynomial.

**Publication Details:**

<b>Journal Name</b>	<b>Vol.</b>	<b>Month &amp;Year</b>	<b>Page No.</b>	<b>Publisher</b>	<b>Scimago Ranking</b>
Electronic Journal of Mathematical Analysis and Applications	9 (2)	July, 2021	158–165	Academic Press Inc.	not yet assigned