1056-12-605   **Phyllis J Cassidy** (`pcassidy@ccny.cuny.edu`), Department of Mathematics, The City College of New York, New York, NY 10038, and **Michael F Singer*** (`singer@math.ncsu.edu`), Department of Mathematics, Box 8205, North Carolina State University, Raleigh, NC 27695-8205. *Differential Groups and Factorization of Partial Differential Operators.*

It is well known that an ordinary differential operator factors as a product of irreducible operators and that in any such factorization the number of such factors is unique. This uniqueness no longer holds for partial differential operators. We show that a Jordan-Hoelder type theorem for differential groups gives a kind of factorization into irreducibles where in any such factorization the number of "factors" are unique and, after a possible permutation are equivalent in a suitable sense. (Received September 15, 2009)