

1086-15-1629

Paul Sundheim* (paul.sundheim@uwc.edu), 1500 University Drive, Waukesha, WI 53188. *A Multiplicative Determinant for 2^m -Dimensional Matrices*. Preliminary report.

A multiplication for $n = 2^m$ dimensional matrices is defined by association with a system of n dimensional hypercomplex numbers. A multiplicative, multi-linear determinant is then derived from the system. Total anti-symmetry and zeros of the determinant will also be discussed. (Received September 23, 2012)