1053-05-102   **Omer Egecioglu*** (`omer@cs.ucsb.edu`), Department of Computer Science, University of California, Santa Barbara, CA 93106. *Hankel determinants, partial sums of the exponential series and Bessel polynomials.*

We consider differential equations and the evaluation of certain Hankel determinants in almost product form. The γ-operator technique to find the explicit form of the almost product evaluation relies on differential-convolution equations and establishes a differential equation for the determinant. As an example of the method, we will consider the evaluation of the family of Hankel determinants whose entries are partial sums of the Maclaurin series for the exponential function. We illustrate the application of the γ-operator technique on this example and derive a closed form evaluation of the determinant in terms of the Bessel polynomials. (Received September 07, 2009)