1019-35-127 Cheng-Hsiung Hsu* (chhsu@math.ncu.edu.tw), Department of Mathematics, National Central University, Chung-Li, 32001, Taiwan. Approximations of the Generalized Euler-Poisson-Darboux Equation.

This work deals with the approximations of the generalized Euler-Poisson-Darboux Equation. The generalized Darboux kernel is analytic and the coefficients of its power expansion are homogeneous polynomials. Furthermore, the generalized Darboux kernel can also be approximated by solutions of the telegraph equation which can be represented by Bessel functions. (Received August 11, 2006)