ON SINGULAR CAUCHY PROBLEM OF EULER-POISSON DARBOUX EQUATION

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Abstract

We solve the singular Cauchy problem of Euler-Poisson-Darboux equation. The Riemann function, a solution corresponding to the adjoint equation is calculated and it enables us to evaluate any solution at a point by the Cauchy data on a non-characteristic curve. The Riemann function, written in terms of the Appell's hypergeometric function of two variables is arrived at, which is of interest and may be a good model for more general theory.