

ON THE CAUCHY PROBLEM FOR THE SUPER KORTEWEG-DE VRIES EQUATION.

ROGER PERES DE MOURA * & ADEMIR PASTOR FERREIRA[†]

In this work we study the Cauchy problem for the super Korteweg-de Vries equation (see [5]). The work is divided in two parts: In the first part we investigate the local well-posedness with small initial data, by using the contraction principle combined with group properties deduced by Kenig/Ponce/Vega [3] for the solution of the linear KdV equation. In the second part we combine ideas of Kenig/Ponce/Vega [2] and Kenig/Stafillani [4] to studying the local well-posedness for the problem without the hypothesis of smallness on the initial data. Our results are an improvement from the work of Barros [1].

References

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*Dep. de Matemática , UFPI, PI, Brasil, mourapr@yahoo.com.br

[†]IMECC, UNICAMP, SP, Brasil, e-mail: apastor@ime.unicamp.br