

LOCAL WELL-POSEDNESS OF A GENERALIZATION OF THE Z-K EQUATION

CAROLINA ALBARRACIN HERNÁNDEZ & MIGUEL RIPPE ESPINOSA

Department of Mathematics, Universidad Nacional de Colombia, Bogota, D.C. - 111321, COLOMBIA

ABSTRACT

Our aim is to establish local well-posedness results in Sobolev spaces $(H^s(\mathbb{R} \times \mathbb{T}), H^s(\mathbb{T} \times \mathbb{T}),$ and $H^s(\mathbb{R} \times \mathbb{R}),$ for $s > 2$) via parabolic regularization of a generalization of Z-K equation.

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KEYWORDS: Cauchy problem, Local well-posedness, Generalized Z-K equation.

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, is a contraction. If, ., and being and . So (9)

(20)