

The IVP for the Benjamin-Ono-Zakharov-Kuznetsov equation in low regularity Sobolev spaces

We show that the initial-value problem associated with the Benjamin-Ono-Zakharov-Kuznetsov equation is locally well-posed in the usual $L^2(\mathbb{R}^2)$ -based Sobolev spaces $H^s(\mathbb{R}^2)$, for $s > 11/8$. It appears as a two-dimensional generalization of the Benjamin-Ono equation. Our proof is based on approach of Kock and Tzvetkov for the Benjamin-Ono equation.

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