



SEMINÁRIO DE EQUAÇÕES DIFERENCIAIS

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

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