SEMINÁRIO DE EQUAÇÕES DIFERENCIAIS

Principio de continuación única para la ecuación de Ostrovsky con dispersión positiva

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Resumo: En esta charla se presenta un principio de continuación única para la ecuación de Ostrovsky con dispersión positiva

$$(0.1)\ \ \partial_t u + \partial_x^3 u + \partial_x^{-1} u + u\partial_x u = 0,\ u = u(x,t),\ \text{con } x \in \mathbb{R} \text{ y } t \in [0,1].$$

Se consideran dos soluciones suficientemente suaves de la ecuación (0.1) cuya diferencia decae espacialmente para $x > 0$ como $e^{-ax^{3/2}}$ para todo $a > 0$, en los tiempos $t = 0$ y $t = 1$ y decae espacialmente para $x > 0$ como $e^{-\beta x}$ para todo $\beta > 0$ en todos los tiempos intermedios entre 0 y 1 y se prueba que dichas soluciones coinciden en $\mathbb{R} \times [0,1]$.
En colaboración con: Pedro Isaza y Jorge Mejía.

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