

Séminaire de mathématiques et leurs applications

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Titre: Convergence of higher order schemes for KdV equation.

Résumé: In this talk, we discuss the convergence of higher order schemes for the Cauchy problem associated to the KdV equation. More precisely, we consider a Galerkin type implicit scheme which has higher order accuracy in space and first order accuracy in time. The convergence is established for initial data in L^2 , and we show that the scheme converges strongly in $L^2(0, T; L^2_{loc}(R))$ to a weak solution.