

MATHEMATICS COLLOQUIUM

Wave dynamics of “peaked” solitons of the Camassa-Holm equation: an overview

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Abstract: The Camassa-Holm (CH) equation has proved to be of considerable and enduring interest since it resurfaced as a model for shallow-water waves. Over the last decade and a half the equation has attracted a substantial literature, much of it devoted to establishing its (completely) integrable credentials. Apart the familiar classical solitons, the CH equation admits nonanalytic peaked solitons - the so-called peakons and cuspons. Peakon solitons, in particular, display a wealth of interesting interaction behaviour. In this talk, we present an overview of these solutions: although we mainly focus on the peakon wave dynamics, we also discuss related limits and critical parameter values.

Date: Thursday, **January 17, 2008**
Time: 4:00 pm – 5:00 pm
Place: J. Wiener Lecture Hall, MAGC 1.302

Refreshments will be served at 3:50pm.

For further information or for special accommodations, contact Dr. Karen Yagdjian at 381-2145, via email at yagdjian@utpa.edu, or visit www.math.panam.edu/colloquia.html