

**Department of Mathematical Sciences  
Colloquium**

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The University of Texas at El Paso

**SHALLOW WATER WAVES AND THEIR GOVERNING  
EQUATIONS: THE B FAMILY**

We talk about several qualitative properties of the classical Korteweg-de Vries, Camassa-Holm and Degasperis-Procesi equations. We first establish the models of the Camassa-Holm and Degasperis-Procesi equations, deriving them from the shallow water wave argument and then compare a large class of properties relating to all three equations. We finally provide a survey of recent results by saha and liu pertaining to the Degasperis-Procesi equation and state some proposals for future research on this equation.

**Friday, October 2, 2009 at 3 pm in Bell Hall 143  
The University of Texas at El Paso**

Refreshments will be served in front of the colloquium room,  
15 minutes before the start of the colloquium.