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**Vladimir V Varlamov\*** (varlamov@utpa.edu), Department of Mathematics, University of Texas  
- Pan American, Edinburg, TX 78539. *Fractional derivative properties for KdV-type equations.*

Fractional derivatives of a function are defined as fractional powers of Laplacian. Fractional derivatives of Airy functions possess interesting properties, e.g. zero means for a certain range of the order of the derivative, parallelogram law for products of Airy functions, Hankel transform representation for a general product of two Airy functions, etc. Related properties are established for the Korteweg-de Vries-type equations (including the classical KdV and its close relative the Ostrovsky equation). (Received January 22, 2008)