



**Speaker:** Vladimir Novikov  
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Tuesday, April 14, 2015  
11:00 AM  
258 Hurley Hall

**Title:** Generalizations of the Camassa-Holm equation

**Abstract:**

Camassa-Holm type equations can be viewed as non-local evolutionary partial differential equations in 1+1-dimensions and thus these equations can be subjected to integrability test based on the symmetry approach. In this talk I will present the classification of generalised Camassa-Holm type equations which possess infinite hierarchies of higher symmetries. I will show that all these equations can be treated as negative flows of integrable quasi-linear scalar evolution equations of order 2,3 or 5. I will also discuss further generalisations of Camassa-Holm type equations.