Speaker: Curtis Holliman  
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Tuesday, December 2, 2014  
11:00 AM  
258 Hurley Hall  

Title: On the ill-posedness for CH and related equations  

Abstract:  
We shall consider the Cauchy problem for CH type equations and discuss the phenomenon of norm inflation in Sobolev spaces $H^s$ for $s$ less than the well-posedness critical index, which for these equations is equal to $3/2$. This means that there exist solutions which are initially arbitrarily small and eventually arbitrarily large with respect to the $H^s$ norm, in an arbitrarily short time. When there is norm inflation, then we have ill-posedness since the data-to-solution map is not continuous.