**DAVID LANNES**, McMaster University, Hamilton, Ontario, Canada
*The Camassa–Holm and Degasperis–Procesi equations and water waves*

The Camassa–Holm and Degasperis–Procesis are well-known bi-Hamiltonian equations with a very rich structure. The aim of this talk is to show how these equations can be seen as model equations in the water wave theory and to point out their relevance to the description of wave breaking phenomena.