Math and Stat Colloquium
Tuesday, Nov. 29
3:30 p.m. LIB 302

Refreshments will be served in the Lund Hall Foyer at 3 p.m.

Speaker:
Dr. Nghiem Nguyen
Assistant Professor of Mathematics
Utah State University

“Nonlinear Dispersive Waves”

Abstract: Model equations for waves that take account of both nonlinearity and dispersion have their genesis in the discovery of the solitary wave (also known as soliton) by John Scott Russell in 1834. Solitary waves are localized nonlinear waves that, in an appropriate sense, interact elastically with each other. They go by the appellation of "soliton" because they exhibit strong stability properties, like those of particle. Solitons are of special importance because of the distinguished role they play in the solution of the initial-value problem for nonlinear evolution equations.

In this talk, derivations of a few models that support solitary waves are presented.
Past and current trends for studying these models are also discussed.