

Distinguished Mathematics Colloquium

From nothing to something: nonlinear systems and quantum representation theory

Professor Senyue Lou

School of Natural Sciences Ningbo University

Abstract:

As Chinese ancient sage Laozi said everything comes from 'nothing', This talk shows that using some suitable Dao, various nonlinear systems including discrete and continuous integrable systems can be really obtained from nothing. It is conjectured that the discrete models generated from nothing via a simple algebraic Dao may be integrable not only because they are identities of a simple algebra, but also modelindependent nonlinear superpositions of atrivial integrable system, index homogeneous decompositions of a simple geometric theorem (the angle bisector theorem), and Mobious transformation invariants. Various continuous nonlinear systems can obtained from nothing via suitable consistent correlated bang. Some types of quantum representation theory can also be obtained from some trivial identities.

Dr. Senyue Lou (lousenyue@nbu.edu.cn), Distinguished Professor at Ningbo University and East China Normal University. Main research interests in Solitons and Integrable Systems; Nonlinear Mathematical Physics; Particle Physics and Field Theory; and Atmospheric and Oceanic Dynamics. Received Ph D from Fudan University, one of the top three universities in China. Published one monograph and more than 300 refereed journal articles including Phys. Rev. Lett, Phys. Rev. E, Stud. Appl. Math., etc. Received many important research grants from CNSF and co-organized many international conferences.

Date: Friday, March 24, 2017 Time: 1:15pm-2:15pm Place: MAGC 1.302

Refreshments will be served at 1:10pm

For further information, or for special accommodations, please contact Dr. Zhijun Qiao via email at zhijun.qiao@utrgv.edu or at 956-665-3406.