University at Albany

Juana Moreno

3:30 PM Thursday, September 21
109 Nicholson Hall

Refreshments served at 3:10 PM in 232 (Library) Nicholson Hall

Correlated quantum systems have the potential to significantly transform the world around us. In order to harness this potential, a detailed understanding of their behavior is needed. However, the many degrees of freedom that confer to these systems their rich properties have also made them rather elusive to a theoretical understanding that is based on previously well-established analytical methods. Computational approaches have, as a result, played an essential role. I will highlight the success of computational approaches and also identify some of their current limitations. Useful as they may be, the scope of these methods is still restricted and may ultimately be tied to, as postulated by Richard Feynman over 30 years ago, the fact that classical computers are being used to study quantum systems. Today, a new avenue is being explored in which quantum simulators and quantum computing may alter this paradigm. I will introduce quantum simulators and quantum computers from this perspective and also discuss some of the

- 2017 Physics Block Party online gallery and results of challenges and games: http://www.lsu.edu/physics/graduate-programs/block-party.php

New Publications

- "Impact of multileaf collimator configuration parameters on the dosimetric accuracy of 6-MV Intensity-Modulated radiation therapy treatment plans" by N. Petersen, D. Perrin, W. Newhauser and R. Zhang. Journal of Medical Physicists, Volume 42, Issue 3, Page 151-155

Events

- Saturday Science: "Systems Thinking and Ecosystem Design: Applications to Restoring Coastal Louisiana" by Dr. Robert R. Twilley from School of the Coast & Environment

  Nicholson Hall – Room 130
  September 16, Saturday, 10:00 AM - 11:00 AM

SATURDAY SCIENCE

Systems Thinking and Ecosystem

About the Topic

Deltas are a unique type of coastal landscape where huge amount
interior of continents flow by way of large rivers and are deposited just before
sea – building new land. Most major human population centers
located on deltas because of their rich fertile soils and plentiful
ation on many coastal river deltas is s