## East Carolina University® Departments of Physics & Biology

## Colloquium

Friday, April 4th, Room N109, Howell Science Complex 3:15 p.m. (Refreshments at 3:00 p.m.)

## Professor Qing Gu North Carolina State University

## Nanophotonic Materials, Metamaterials, and Devices

Nanophotonic materials and metamaterials enable many photonic devices with novel functionality and high performance. I will introduce gain-assisted luminescent hyperbolic metamaterials, miniature magneto-optical traps utilizing metasurfaces, and on-chip light sources of various functionalities. Utilizing optical gain and loss in emerging material composites, I will also discuss topologically protected microlasers, charge-parity symmetry-enabled alldielectric hyperbolic metamaterials, and topological photonic states for robust data transportation.

WebEx Link:

https://ecu.webex.com/ecu/j.php?MTID=m597b61dec85df5a0e1e21138fe56cd86

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