BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA

INSTITUTO DE FÍSICA
"Luis Rivera Terrazas"

SEMINARIO EXTRAORDINARIO
"DR. JESUS REYES CORONA"

"Optical solitons in nematic liquid crystals: continuous and discrete models"

Dr. Panayotis Panayotaros
Instituto de Investigaciones en Matemáticas Aplicadas y Sistemas, UNAM

We present recent results on optical solitons in nematic liquid crystals, with more emphasis on laser light propagation in waveguide arrays made from liquid crystal substrates. Laser light propagation in nematic liquid crystals has features such as nonlocality and nonlinear saturation that stabilize optical solitons. In the case of waveguides, the system has been modelled by a nonlocal discrete nonlinear Schrödinger equation proposed by Frattalochi and Assanto. We discuss some properties of localized and front solutions of this model and some work in progress on its derivation, partial justification and extensions.

Auditorio-IFUAP
Miércoles 04 de Diciembre de 2019
13:00 Hrs.