

THE DEPARTMENT OF MATHEMATICAL SCIENCES PROUDLY PRESENTS

COLLOQUIUM

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An introduction to bifurcation theory with applications to nonlinear elasticity

Dr. Pablo Negrón
UPR – Humacao

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ABSTRACT

Problems with non unique solutions are very common in applications and many times this property is a needed or desirable one. Bifurcation theory is an essential tool for the study of this type of problems, in particular to get information on how the solutions depend on one or more parameters in the problem. With the aid of examples, we will discuss or motivate some of the basic notions of bifurcation theory, working our way into the more rigorous or abstract setting. We will then discuss applications of the theory to the solution of systems of algebraic equations and to problems in elasticity theory in one and higher dimensions.

Monzón Building, Room 201, 10:30 AM
Refreshments will be served
15 minutes before the colloquium, M203

