

Title:

On isochronous Hill's equations

Abstract:

Given a T -periodic Hill equation $x'' + a(t)x = 0$ we will study the problem of characterizing the case where all its solutions are periodic. We will call these equations *isochronous*. The final goal would be to characterize the isochronicity in terms of some properties of a .

With this aim, in this talk we will present and discuss several examples of isochronous Hill's equations and we also characterize the isochronicity in terms of a given T -periodic solution.

This is a work in progress, in collaboration with Adriana Buica.