



UNIVERSITÀ DELLA CALABRIA

DIPARTIMENTO DI
MATEMATICA
E INFORMATICA

Dipartimento di Matematica e Informatica

Avviso di Seminario

Mercoledì 19 ottobre 2016 – ore 15:30

Aula MT11 – cubo 30B piano secondo

Prof.ssa Catherine Bandle

Dipartimento di Matematica, Università di Basilea

terrà un seminario dal titolo:

*An elliptic operator with infinitely many
positive and negative eigenvalues:
applications to parabolic problems with
dynamical boundary conditions*

Abstract

The existence theory for the solutions of a parabolic problem with dynamical boundary conditions leads to the spectral theory of an associated elliptic problem with the eigenvalue parameter both in the equation and on the boundary. We shall discuss this spectrum which, in certain cases leads to an infinite sequence of positive and an infinite sequence of negative eigenvalues.

Special attention is given to those eigenvalues, the eigenfunctions of which are of constant sign.

In certain cases a Rayleigh-Faber-Krahn inequality holds which follows from the one for the membrane with Robin boundary conditions.

Il Direttore del Dipartimento
prof. Nicola LEONE