S E M I N A R

Ana Belén Avilez García
(Chapman University, USA)

Date:
Thursday, 27 March 2025

Time:
12h15-13h15 SAST

Venues:

- **NITheCS Seminar Room**
  University of KwaZulu-Natal
  Westville Campus
  3rd Floor, H-Block,
  School of Chemistry and Physics

- Online

WHO SHOULD ATTEND?
This talk is intended to be accessible to postgraduate students. All are welcome!

ENQUIRIES:
Email Neli Mncube: neli.mncube@nithecs.ac.za

Coz-inclusions and the Čech-Stone compactification

ABSTRACT:
In classical topology several types of subspace embeddings, such as C*- and z-embeddings, have been thoroughly studied. The respective notions have been generalized for frames (locales). There is yet another type of embedding never studied before, not even in the classical context, that appears as a strengthening of z-embeddings but is incomparable with C*-embeddings: coz-inclusions.

In this talk, in the context of point-free topology, the new notion of a coz-included sublocale will be introduced motivated by non-trivial spatial examples. This new notion and other weakenings, such as casi coz-included and relative zero sublocales, will be explored and characterized. As a consequence, new characterizations of several classes of frames, will be provided. To achieve this goal we will first provide a general background on point-free topology. In particular we will recall the Čech-Stone compactification of a frame, since this construction will provide illustrative examples.

This talk is based on a joint work with Oghenetega Ighedo and Joanne Walters-Wayland.

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