

CATEGORY THEORY RESEARCH SEMINAR:

# Inverse Semirings and Monoidal Functors

Dr Peter Faul (Stellenbosch University)

**DATE:** Tuesday, 23 July 2024 | 12h10 – 13h00 SAST

**VENUES:**

- Room 3006, Mathematics and Industrial Psychology Building, Stellenbosch University
- Online

## ABSTRACT

In this talk we explore the concept of an inverse semiring which is like a ring except that the abelian group structure has been replaced by an inverse monoid.

We will prove some basic results and look at some natural examples before sketching a proof that inverse semirings are precisely monoidal functors out of an idempotent semiring into the category of abelian groups.

## BIOGRAPHY

Peter is a lecturer at Stellenbosch University. He received his PhD from the University of Cambridge. His research interests include category theory, semigroup theory and topology.

## WHO SHOULD ATTEND?

All are welcome. It will be assumed that the audience is familiar with basic concepts of category theory.



**REGISTER  
TO ATTEND:**

<https://bit.ly/3LBjCaQ>



**SUBSCRIBE  
TO THE  
NITheCS MAILING LIST:**

