

CATEGORY THEORY RESEARCH SEMINAR: **Extensivity for Sum Structures**

Roy Ferguson (Stellenbosch University)

DATE: Tuesday, 14 May 2024 | 12h10 – 13h00 SAST

VENUES:

- Room 1006, Mathematics and Industrial Psychology Building, Stellenbosch University
- Online

ABSTRACT

Extensivity is a condition on a category with a coproduct that requires the coproduct to behave like the disjoint union of sets. A sum structure is a kind of monoidal structure that can be seen as a generalisation of coproduct. We propose a definition of extensivity for sum structures, called sum-extensivity, which has two equivalent formulations, analogous to those for extensivity for coproducts. We explore some properties of sum-extensivity; restrictions of sum-extensive categories to certain classes of morphisms M , relating this to M -extensivity; as well as some examples of sum-extensive categories (of which one is pointed!).

BIOGRAPHY

Roy is a student at Stellenbosch University working toward his PhD in mathematics. He is currently doing research on monoidal categories and (separately) on Grothendieck toposes. His areas of interest include topos theory, fibred category theory and logic, and monoidal algebra.

WHO SHOULD ATTEND?

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



REGISTER TO ATTEND

Visit <https://bit.ly/3wCirEb>
or scan:



SUBSCRIBE TO THE NITheCS MAILING LIST:

