

COE-Mass weekly seminar series

THE DST-NRF CENTRE OF EXCELLENCE IN MATHEMATICAL AND STATISTICAL SCIENCES (CoE-MaSS) PRESENTS A SEMINAR BY

Dr Bruce Bartlett

(Senior Lecturer, Stellenbosch University)

"Three-dimensional manifolds and braided monoidal categories"

Friday, 2 March 2018 10h30-11h30 CoE-MaSS Seminar Room, 1st floor, Math Sci Bldg, West Campus, Wits University



I will explain how 3-manifolds can be built out of elementary building blocks using higher category theory, and how this helps us to find "representations" of this structure. The technical result is that the symmetric monoidal bicategory formed by three-dimensional cobordisms with corners has a finite presentation P. Using this presentation, functors from P

("representations of P") into the bicategory Cat of linear categories can be classified in terms of modular categories.



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