Universität Stuttgart

mathematik physik fakultät8

Kolloquium
des Fachbereichs Mathematik

Es spricht am Montag, 22. November 2021 um 16:00 Uhr

Herr Dr. Frederik Marks
(Universität Stuttgart)

zum Thema:

"Silting objects and localisations"

Abstract:

Equivalences of categories play an essential role in mathematics, as they allow us to compare situations and objects of different nature. An important line of research in representation theory started with Morita theory and developed into tilting theory, explaining when two derived module categories are equivalent. In the last decade tilting theory was generalised to silting theory, which quickly became a very active research field, with an impact reaching far beyond representation theory.

In this talk, I will explain in some detail the development from tilting theory to silting theory, and I will show that silting objects are intrinsically connected to different types of localisations. The general philosophy is that derived equivalences are controlled by tilting objects, whereas localisations are controlled by silting objects. The results presented in this context are part of a bigger and ongoing research programme, with the aim of providing a unifying setup to simultaneously study silting objects and localisations.

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Die Dozentinnen und Dozenten des Fachbereichs Mathematik