



Algebra Seminar

Bimodules (aka profunctors) and double categories

BY

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Abstract: In this expository talk we consider modules and bimodules (also called profunctors) over categories. We start by introducing their tensor product using the free category construction out of a graph which we will present (this is not quite explicit in the literature). This enables us to form a 2-category where bimodules are seen as morphisms. However the interplay between functors and profunctors is not captured in the 2-category of bimodules, or in the 2-category of functors and natural transformations.

We will introduce double categories as a formal structure where this interplay is well-understood. All of the above generalizes for enriched categories, but we will focus on the unenriched case for the time being.

Date: 26 February 2018, Monday

Time: 10:40+

Place: Mathematics Seminar Room, Bilkent.

Tea and biscuits will be served before the seminar. You are most cordially invited.