

# Seminar/Talk

## Flat and Injective Modules

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**Abstract:** Flat and injective modules are defined by the functors Tor and Ext respectively. A module  $M$  is said to be flat if  $\text{Tor}_1^R(M, F) = 0$ , for a finitely presented module  $F$ . If  $\text{Ext}_1^R(F, M) = 0$ , for a finitely presented module  $F$ , then the module  $M$  is injective. If both relations above hold for super finitely presented module  $F$ , then the module  $M$  is weak flat and weak injective. In this talk, I will discuss the construction of both functors Tor and Ext with some results about weak injective and weak flat modules and the dimensions of these modules.

- **Dia:** 25 de Fevereiro de 2022, às 15h
- **Local:** Sala de Reuniões, Departamento de Matemática, UBI