TOPOLOGY SEMINARS

2-dimensional groups and H^3

By

Redi Haderi
(Bilkent)

Abstract: We have seen that H^2 classifies certain group extensions last week. This week we will see what H^3 classifies and that will be equivalence classes of 2-dimensional groups. If we say that a group is a structure that describes symmetries then a 2-group is a structure that describes symmetries and symmetries between symmetries. We make this notion precise using 2-category theory (which will be reviewed to the extent we need). Then we prove that these are equivalent to crossed modules and 2-term extensions. Finally we describe how they are classified via H^3 of an appropriate group.

Date: December 17, 2018, Monday
Time: 13:40 – 15:00
Place: SA141 Mathematics Seminar Room

* Tea and cookies will be served after the talk. All are most cordially invited.