

HOMOLOGICAL ALGEBRA, MATH 212A

RAPHAËL ROUQUIER

Winter 2017

MWF 9-9:50am, MS 6201

This course will give an introduction to homological algebra. We will describe both the classical theory and the derived category approach.

References

- H.Cartan and S.Eilenberg, “Homological algebra”, Princeton Univ. Press, 1956.
- S.Gelfand and Y.Manin, “Methods of homological algebra”, Springer Verlag, 2002.
- M.Kashiwara and P.Schapira, “Categories and sheaves”, Springer Verlag, 2006.
- C.Weibel, “An introduction to homological Algebra”, Cambridge University Press, 1994.

Grading

The course assessment will be based on a 20mn presentation of an assigned project. The presentations will be held during the week March 13–17.

A preferred choice, as well as a second and a third choice, will need to be sent to me by email by Monday February 13. An abstract of what you plan to do for the presentation will be due on Monday February 27. The list of projects will be provided on Wednesday February 8. You may also suggest your own topic, which I will need to approve.