Math 515-1: Derived commutative rings

Benjamin Antieau

Winter 2026

When: 1000-1050 MWF.

No class: 1/5, 2/6, 3/6, 3/9. Makeup dates and times to be determined.

Where: Lunt Hall 101.

Office hours: 1100-1200 F in Lunt Hall 304.

Texts: Math 521 notes; kerodon.net.

Coursework: attending lectures and office hours, reading, problem sets.

Exams: none.

Goal. We will work to understand the theory and quantitative behavior of $\mathbf{E}_\infty$-rings and derived commutative rings.

Evaluation. Problem sets will be collected in class on a weekly basis. I will provide feedback in the form of written comments on all problem sets. The grade for this course will be assigned based on a self-evaluation each student will submit via email by 1700 on Thursday 3/19. This one-paragraph document will explain the work they carried out during the quarter and give their assessment of the grade earned. Further guidelines will be given in class.

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