

Minicourse

Complex cobordism and formal group laws

Spring 2026

Course description: Formal group laws appear in a variety of contexts, including Lubin and Tate's explicit local class field theory and the theory of Chern classes of complex oriented cohomology theories. We will introduce formal group laws (including Lazard's theorem), orientations of cohomology theories (which give the Todd genus, Ahat genus), and discuss Quillen's work connecting complex cobordism with the universal formal group law. Time permitting we will introduce some further ideas in the field of chromatic homotopy theory.

Time and place: TuTh 10:05–11:20AM, 2026-01-08 - 2026-02-05 in Gross Hall 324.

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office hours: subject to change based on weekly constraints. Wednesdays 12:30-1:30pm, Tuesday 1-2 or by appointment.

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