Topology Seminar

Kirsten Wickelgren

of Harvard University will be speaking on

2 nilpotent real section conjecture

on November 8 at 4:30 in
MIT Room 2-131

We show a 2-nilpotent section conjecture over R: for a smooth curve X over R with negative Euler characteristic, $\pi_0(X(R))$ is determined by the maximal 2-nilpotent quotient of the fundamental group with its Galois action, as the kernel of an obstruction of Jordan Ellenberg. This implies that the set of real points equipped with a real tangent direction of the smooth compactification of X is determined by the maximal 2-nilpotent quotient of $Gal(C(X))$ with its $Gal(R)$ action, showing a 2-nilpotent birational real section conjecture.