1167-51-153 **Khanh Le** and **Rebekah Palmer*** (rebekah.palmer@temple.edu). *Totally geodesic surfaces in twist knot complements.*

Studying the existence of totally geodesic surfaces influences the understanding of the 3-manifolds that contain them. Most recently, Bader, Fisher, Miller, and Stover showed that having infinitely many maximal totally geodesic surfaces implies that the 3-manifold is arithmetic. In this talk, I will conversely present examples of infinitely many non-commensurable (non-arithmetic) hyperbolic 3-manifolds that contain a unique totally geodesic surface and then extend that result to containing exactly k totally geodesic surfaces via covering space techniques. This is joint work with Khanh Le. (Received March 04, 2021)