

1135-57-3159 **Jason Parsley*** (parslerj@wfu.edu). *Finding accessible open problems in topology & geometry.*

For undergraduate research mentors, one formidable task is finding open problems at appropriate levels for their students. In this talk, we describe several routes for arriving at suitable problems, via two main examples, one from knot theory, one from geometry.

In knot theory, we describe ‘petal knots’ – knots which possess a flower-shaped diagram. Next, we examine the geometry of weighted voting. Each case concludes with some open problems. (Received September 26, 2017)