## 1078-57-207 **Ryan D Budney\*** (rybu@uvic.ca), University of Victoria, Department of Mathematics and Statistics, PO BOX 3060 STN CSC, Victoria, BC V8W 3R4, Canada, and **Benjamin Burton** and **Jonathan Hillman**. Some simple triangulations.

I'll describe the story of how Thurston observed some very simple triangulations of knot and link complements in the 3sphere. This allowed for a relatively simple way to find hyperbolic structures on such manifolds, and was a key inspiration for the Geometrization Conjecture for 3-manifolds. Ben Burton and I have recently been studying 4-dimensional triangulations and we came across an analogous triangulation for the complement of an embedded 2-sphere in the 4-sphere. While this does not lead to an amazing conjecture like Geometrization, it does lead to an interesting insight into things called Cappell-Shaneson knots, which are historically related to the smooth 4-dimensional Poincare conjecture. This is joint work with Ben Burton and Jonathan Hillman. (Received December 07, 2011)