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Luis G Valdez-Sanchez* (lvsanchez@utep.edu), University of Texas at El Paso, Department of Mathematical Sciences, 500 West University Ave, El Paso, TX 79968. *The Kakimizu complex for a genus one hyperbolic knot in the 3-sphere.* Preliminary report.

For a knot $K \subset \mathbb{S}^3$ with exterior $X_K = \mathbb{S}^3 \setminus \text{int } N(K)$, the Kakimizu complex $MS(K)$ is the simplicial complex with simplices the collections of isotopy classes of minimal genus Seifert surfaces in X_K that can be realized by mutually disjoint and non-parallel such surfaces.

The complex $MS(K)$ is flag, finite dimensional and contractible, and in the case of a hyperbolic knot K it is a finite complex with diameter bounded by a quadratic function of its genus.

In this talk we consider the complex $MS(K)$ for genus one hyperbolic knots $K \subset \mathbb{S}^3$, in which case the optimal bounds for its dimension and diameter are known to be 5 and 2, respectively. We refine these results by showing that, in the top dimension, the complex $MS(K)$ consists of at most 2 simplices, and exactly one 5-simplex in the 5-dimensional case. We also provide infinitely many examples of such knots for which $MS(K)$ consists of exactly one or exactly two top-dimensional simplices. (Received August 03, 2020)