1150-16-542 **Christopher Chung*** (cc2wn@virginia.edu). *$\imath$-divided powers and $\imath$-Serre presentation for quantum covering algebras.* Preliminary report.

In 2016, Bao and Wang developed a general theory of $\imath$-canonical basis for quantum symmetric pairs, generalizing the canonical basis of Lusztig-Kashiwara for quantum groups. Soon after, Berman-Wang established closed form formulas for the $\imath$-divided powers ($\imath$-canonical basis) as polynomials in t, the generator for the coideal subalgebra of quantum $\mathfrak{sl}_2$. These formulas were then used by Chen, Lu and Wang to establish a presentation for the coideal subalgebra $\mathbf{U}^\imath$ of $(\mathbf{U}, \mathbf{U}^\imath)$ the quasi-split quantum symmetric pair of Kac-Moody type, in terms of explicit $\imath$-Serre relations. In a series of papers, Clark, Hill and Wang developed a theory of quantum covering algebras, which generalizes both the Lusztig quantum group and quantum supergroups. In this talk, we will show how the results for $\imath$-divided powers and the $\imath$-Serre presentation can be extended to the quantum covering algebra setting. (Received July 15, 2019)