

**SEQUENCE OF OPERATOR ALGEBRAS CONVERGING TO
ODD SPHERES IN THE QUANTUM GROMOV-HAUSDORFF
DISTANCE**

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Abstract: Marc Rieffel had introduced the notion of quantum Gromov-Hausdorff distance on compact quantum metric spaces and found a sequence of matrix algebras that converges to the space of continuous functions of two sphere in this distance, that one finds in many scattered places in the theoretical physics literature. The compact quantum metric spaces and convergence in the quantum Gromov-Hausdorff distance has been explored by a lot of mathematicians in the last two decades. We will define compact quantum metric space structure on the sequence of Toeplitz algebras on generalized Bergman space and prove that it converges to the space of continuous function on odd spheres in the quantum Gromov-Hausdorff distance. This is a joint work with Prof. Tirthankar Bhattacharyya.