

Thompson isometries on positive definite cones in C^* -algebras and their applications
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Abstract: In this talk we first present a result by Hatori and Molnár in which we described the structure of all surjective maps between the positive definite cones of C^* -algebras that are isometries with respect to the so-called Thompson part metric.

Next we give several applications of that result concerning the descriptions of preservers of Rényi, Umegaki, Belavkin-Staszewski relative entropies on density spaces of C^* -algebras as well as the isometries of the Bures-Wasserstein metric on positive definite cones.