ON SINGULARITIES OF LABELED GRAPH C^*–ALGEBRAS

DEBENDRA P. BANJADE, AMY CHAMBERS AND MENASSIE EPHREM

Abstract. Given a directed graph E and a labeling $\mathscr{L}$, one forms the labeled graph C^*-algebra by taking a weakly left–resolving labeled space $(E,\mathscr{L},\mathscr{B})$ and considering a universal generating family of partial isometries and projections.

   In this paper, given a labeled space $(E,\mathscr{L},\mathscr{B})$, we provide a process in which one can build a "larger" desingularized labeled space $(F,\mathscr{L}_F,\mathscr{B}_F)$ whose graph F essentially maintains the loop structure of the original graph E and such that the unitization of $C^*(E,\mathscr{L},\mathscr{B})$ is a full corner of $C^*(F,\mathscr{L}_F,\mathscr{B}_F)$.

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