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**Bruce Blackadar\*** (bruceb@unr.edu), Department of Mathematics/084, University of Nevada, Reno, Reno, NV 89557. *Nonstable  $K$ -Theory of Unital Free Product  $C^*$ -Algebras*. Preliminary report.

We will discuss several problems and results concerning the nonstable  $K$ -theory of unital free products of  $C^*$ -algebras, including the homotopy classes of projections and unitaries. If  $A$  is a unital  $C^*$ -algebra, the quotient group  $\mathcal{U}(A)/\mathcal{U}(A)_0$  of the unitary group of  $A$  by the connected component of the identity is called the *unitary path group* of  $A$ . We show that for many unital  $C^*$ -algebras  $B$ , the natural map from the unitary path group of  $A$  to the unitary path group of the unital free product  $A *_C B$  is injective, for every unital  $C^*$ -algebra  $A$ . (Received February 26, 2007)