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Santanu Chakraborty* (schakraborty@utpa.edu), Department of Mathematics, University of Texas - Pan American, 1201 West University Drive, Edinburg, TX 78541. *A special case of rational thetas for terminating θ -expansions.*

There had been quite a few generalizations of the usual continued fraction expansions over the last few years. One of the very special generalizations deals with θ -continued fraction expansions or simply θ -expansions introduced by R.N.Bhattacharya and A.Goswami. Then S.Chakraborty and B.V.Rao did elaborate studies on θ -expansions in their paper and they also obtained the unique invariant measure for the Markov process associated with the generalized Gauss transformation that generated θ -expansions for some special θ s. In this work, we investigate an interesting question regarding the nature of θ s for θ -expansion of $\frac{1}{\theta}$ (Received September 16, 2007)