1125-47-2860 **Debendra P Banjade\*** (dpbanjade@coastal.edu), Coastal Carolina University, Department of Mathematics and Statistics, P. O. Box. 261954, Conway, SC 29528. *Estimates for the Corona Theorem on $H_{\mathbb{I}}^\infty(\mathbb{D})$..*

Let $\mathbb{I}$ be a proper ideal of $H^\infty(\mathbb{D})$. We prove the corona theorem for infinitely many generators on the subalgebra $H_{\mathbb{I}}^\infty(\mathbb{D})$, in which the corona theorem for finitely many functions is known to hold, for example in [2]. This settles the conjecture of Ryle [1]. Moreover, we prove a generalized Wolff's Ideal Theorem for this subalgebra.

References:

[1] J. Ryle, A corona theorem for certain subalgebras of $H^\infty(\mathbb{D})$, Dissertation, The University of Alabama, (2009).

[2] R. Mortini, A. Sasane, and B. Wick, The corona theorem and stable rank for $\mathbb{C} + BH^\infty(\mathbb{D})$, Houston J. Math. 36 (2010), no. 1, 289-302. (Received September 20, 2016)