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**Sean D Cox\***, Dept of Mathematics and Applied Mathematics, Virginia Commonwealth University, 1015 Floyd Ave, Richmond, VA 23284. *Presaturation and bounding by canonical functions on  $NS \upharpoonright S_1^2$ .*

If  $\mathcal{I}$  is a normal ideal on an uncountable regular cardinal  $\kappa$ , we say that  $\mathcal{I}$  is **presaturated** iff the boolean algebra  $\wp(\kappa)/\mathcal{I}$  preserves  $\kappa^+$  and yields wellfounded generic ultrapowers; this is weaker than **saturation**, which requires that  $\wp(\kappa)/\mathcal{I}$  has the  $\kappa^+$  chain condition. I will discuss some joint work with Martin Zeman, where we show that GCH is consistent with presaturation of  $NS \upharpoonright S_1^2$ , where  $S_1^2 := \omega_2 \cap \text{cof}(\omega_1)$ . This model also satisfies that every  $f : \omega_2 \rightarrow \omega_2$  is bounded on an  $\omega_1$ -club by a canonical function. (Received August 10, 2013)