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E. Todd Eisworth* (eisworth@math.ohiou.edu), Department of Mathematics, Ohio University, Athens, OH 45701. *Club-guessing and combinatorial set theory.*

In the context of $\lambda = \mu^+$ for μ strong limit singular, we investigate a dichotomy concerning a certain club-guessing ideal. Letting I denote this ideal $(\text{id}_p(\bar{C}, \bar{I}))$ for a particular sort of \bar{C} and \bar{I} , the dichotomy arises when we ask if λ can be partitioned into μ disjoint I -positive sets. If the answer is “yes”, then there is a function $c : [\lambda]^2 \rightarrow \lambda$ with extremely strong “anti-Ramsey” properties. If the answer is “no”, then there is an ideal J on λ satisfying saturation properties strong enough to imply that every stationary subset of $\{\delta < \lambda : \text{cf}(\delta) \neq \text{cf}(\mu)\}$ reflects. Open questions will be discussed as time permits. (Received January 23, 2007)