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Brent Cody* (bmcody@vcu.edu), 1015 Floyd Avenue, Richmond, VA 23220. *Characterizations of the weakly compact ideal on $P_\kappa\lambda$.*

Baumgartner used a natural two-cardinal version of the cumulative hierarchy to define a notion of Π_1^1 -indescribable subset of $P_\kappa\lambda$, which gives rise to the normal ideal of non- Π_1^1 -indescribable subsets of $P_\kappa\lambda$. We generalize two of the most useful characterizations of Π_1^1 -indescribable subsets of a cardinal to subsets of $P_\kappa\lambda$. Wen Zhi Sun proved that, assuming κ is Π_1^1 -indescribable, a set $W \subseteq \kappa$ is Π_1^1 -indescribable if and only if $W \cap C \neq \emptyset$ for every 1-club $C \subseteq \kappa$. Using the minimal *strongly* normal ideal on $P_\kappa\lambda$, we formulate an appropriate notion of 1-club subset of $P_\kappa\lambda$ such that Sun's characterization generalizes to Baumgartner's two-cardinal indescribability. We also give an elementary embedding characterization of Baumgartner's two-cardinal indescribability using embeddings resembling those considered by Jason Schanker witnessing *near supercompactness*. We will discuss applications including an answer to a question of Cox-Lücke and prove several partial results involving shooting 1-clubs through weakly compact subsets of $P_\kappa\lambda$. (Received August 13, 2018)