1086-05-1086 **Ben Bond*** (benbond@mit.edu). *EKR sets for large n and r.*

Let $\mathcal{A} \subset \binom{[n]}{r}$ be a compressed, intersecting family and let $X \subset [n]$. Let $\mathcal{A}(X) = \{A \in \mathcal{A} : A \cap X \neq \emptyset\}$ and $\mathcal{S}_{n,r} = \binom{[n]}{r}(\{1\})$. Motivated by the Erdős-Ko-Rado theorem, Borg asked for which $X \subset [2,n]$ do we have $|\mathcal{A}(X)| \leq |\mathcal{S}_{n,r}(X)|$ for all compressed, intersecting families $\mathcal{A}$? We call X that satisfy this property *EKR*. Borg classified EKR sets X such that $|X| \geq r$. Barber classified X, with $|X| \leq r$, such that X is EKR for sufficiently large n, and asked how large n must be. We prove n is sufficiently large when n grows quadratically in r. In the case where $\mathcal{A}$ has a maximal element, we are able to sharpen this bound to $n > \varphi^2 r$ implies $|\mathcal{A}(X)| \leq |\mathcal{S}_{n,r}(X)|$. (Received September 18, 2012)