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**William Jamieson**. *Hitting Set Size for Random Set Systems*.

Let  $\Lambda$  be a random set system of  $[n] = \{1, 2, \dots, n\}$ , where  $\Lambda = \{A_j \mid A_j \in \mathcal{P}([n]), \text{ and } A_j \text{ selected with probability } p\}$ . A set  $H \subseteq [n]$  is a hitting set of  $\Lambda$  if  $|H \cap A_j| \geq 1$  for all  $A_j \in \Lambda$ . We explore the minimum cardinality of  $H$  with respect to  $p$  and  $n$  using probabilistic methods. (Received September 22, 2011)