1161-05-213   **Victor Falgas-Ravry**, **Klas Markström**, **Andrew Treglown** and **Yi Zhao***
(`yzhao6@gsu.edu`). *Existence thresholds and Ramsey properties of random posets.*

Let P_n denote the power set of $[n]$, ordered by inclusion, and let $P(n, p)$ denote the random poset obtained from P_n by retaining each element from P_n independently at random with probability p and discarding it otherwise.

Given *any* fixed poset F, we determine the threshold for the property that $P(n, p)$ contains F as an induced subposet. We also asymptotically determine the number of copies of a fixed poset F in P_n. Finally, we obtain a number of results on the Ramsey properties of the random poset $P(n, p)$. (Received August 17, 2020)