1161-05-138   **Alan M Frieze*** (`alan@random.math.cmu.edu`), 5000 Forbes Avenue, Pittsburgh, PA 15213. *The effect of adding randomly weighted edges.*

We consider the following question. We have a dense regular graph G with degree αn, where $\alpha > 0$ is a constant. We add $m = o(n^2)$ random edges. The edges of the augmented graph $G(m)$ are given independent edge weights $X(e), e \in E(G(m))$. We estimate the minimum weight of some specified combinatorial structures. We show that in certain cases, we can obtain the same estimate as is known for the complete graph, but scaled by a factor α^{-1}. We consider spanning trees, shortest paths and perfect matchings in (pseudo-random) bipartite graphs. (Received August 14, 2020)