1022-05-136 Kevin P Costello* (kcostell@math.rutgers.edu), Department of Mathematics – Hill Center, Rutgers, the State University of New Jersey, 110 Frelinghuysen Road, Piscataway, NJ 08854, and Van H Vu (vanvu@math.rutgers.edu), Department of Mathematics – Hill Center, Rutgers, the State University of New Jersey, 110 Frelinghuysen Road, Piscataway, NJ 08854. The Rank of Random Graphs.

We consider the adjacency matrix of an Erdös-Rényi random graph G(n, p), and in particular the following two questions:

1. Is the matrix almost surely (non-)singular?

2. If the matrix is singular, how close is it likely to be to full rank?

We will discuss answers to the two questions for edge probabilities in the range $\frac{\ln n}{2n} . (Received September 12, 2006)$