

Ramsey numbers of cycles in random graphs

Pedro Araújo

We show that with high probability every 2-edge-colouring of a binomial random graph $G(N, p)$ contains a monochromatic C_n , as long as $N > R(C_n) + C/p$ and $p \geq C/n$, for some $C > 0$, where $R(C_n)$ is the Ramsey Number of C_n . This is sharp up to the value of C .