Erratum: Small-World Networks: Evidence for a Crossover Picture [Phys. Rev. Lett. 82, 3180 (1999)]

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We have performed new calculations using the breadth-first search algorithm [1,2]. We are now able to study systems with sizes up to n = 5500. As shown in Fig. 1, we now find $\tau \approx 1$, in agreement with the simple argument given in our Letter but different from the originally reported numerical result ($\tau = 0.67 \pm 0.10$). The reason for the incorrect numerical result reported initially is the small system sizes we studied, which did not allow us to reach the asymptotic regime.

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FIG. 1. Log-log plot of n^* vs p for system sizes up to 5500 and for z = 2, 4. Note that the curvature of $n^*(p)$ in the log-log plot, which gives us a local estimate of τ , is increasing as p decreases. In the inset, we show that τ approaches 1 as $p \to 0$. Our new estimate of τ is 0.97 \pm 0.05, consistent with the value 1 given by a simple scaling argument.

- [1] Handbook of Theoretical Computer Science, edited by J. van Leeuwen, Algorithms and Complexity Vol. A (Elsevier, Amsterdam, 1990), p. 539.
- [2] We found the LEDA libraries very useful and efficient (http://www.mpi-sb.mpg.de/LEDA/leda.html).
- [3] A. Barrat, cond-mat/9903323; A. Barrat and M. Weigt, cond-mat/9903411.
- [4] M.E.J. Newman and D.J. Watts, cond-mat/9903357.