1035-60-1684   **Wenbo Li** and **Xinyi Zhang*** (`xzhang@math.udel.edu`). *Expected Length of Random Minimum Spanning tree.* Preliminary report.

An exact formula for the expected length of the minimum spanning tree of a connected graph with independent and identical edge distribution is given, which generalizes Steele's formula in the uniform case. For a complete graph, the difference of expected lengths between exponential with rate one and uniform on $(0, 1)$ is shown to be positive and of rate $\zeta(3)/n$. (Received September 20, 2007)