**Abstract**

The hitting time $H_{xy}$ between two vertices $x$ and $y$ of a graph is the average time that the standard simple random walk takes to get from $x$ to $y$. In this paper, we study the distribution of the hitting time between two randomly chosen vertices of a random tree. We consider both uniformly random labelled trees and a more general model with vertex weights akin to simply generated trees. We show that the $r$-th moment of the hitting time is of asymptotic order $n^{3r/2}$ in trees of order $n$, and we describe the limiting distribution upon normalisation by means of its moments. Moreover, we also obtain joint moments with the distance between the two selected vertices. Finally, we discuss a somewhat different model of randomness, namely random recursive trees. In this setup, the root is of special importance, and so we study the hitting time from the root to a random vertex or from a random vertex to the root. Interestingly, the hitting time from the root is of order $n \log n$, with a normal limit law, while the hitting time to the root is only of linear order and has a non-Gaussian limit law.