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A functional limit law for the profile of plane-oriented recursive trees. (English)

[Zbl 1355.05229](#)

Fifth colloquium on mathematics and computer science. Lectures from the colloquium, Blaubeuren, Germany, September 22–26, 2008. Nancy: The Association. Discrete Mathematics & Theoretical Computer Science (DMTCS). Discrete Mathematics and Theoretical Computer Science Proceedings AI, 339-350 (2008).

Summary: We give a functional limit law for the normalized profile of random plane-oriented recursive trees. The proof uses martingale convergence theorems in discrete and continuous-time. This complements results of *H.-K. Hwang* [Random Struct. Algorithms 30, No. 3, 380–413 (2007; [Zbl 1115.05083](#))].

For the entire collection see [[Zbl 1172.05004](#)].

MSC:

- [05C80](#) Random graphs (graph-theoretic aspects)
- [05C05](#) Trees
- [60C05](#) Combinatorial probability
- [60F17](#) Functional limit theorems; invariance principles
- [68P05](#) Data structures

Cited in **5** Documents

Keywords:

plane-oriented recursive trees; random trees; profile of trees; preferential attachment; branching random walk; martingales; analysis of algorithms

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