

# Random graphs and its applications for networks

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The Directed Spanning Forest converges to the Brownian Web

The Directed Spanning Forest (DSF) is a geometric random graph built on a Poisson Point Process. It has been introduced by Baccelli & Bordenave in 2008 as a tool to study communication networks but actually appears as interesting in itself. Indeed, Baccelli & Bordenave conjectured: 1. the DSF actually is a tree and 2. under a diffusive scaling, the DSF converges to the Brownian Web. This talk is mainly devoted to the second conjecture.

Joint work with C. Tran (Lille), K. Saha (Bangalore, India) and A. Sarkar (New Delhi, India).