

# Random walk on the range of critical branching random walks

*Manuel Antonio Cabezas Parra*

Pontificia Universidad Católica de Chile.

**Abstract:** It is expected that, in high dimensions, the large critical percolation clusters converge to the Integrated Super Brownian Excursion (ISBE), which can be viewed as the Continuum Random Tree embedded in  $\mathbb{R}^d$ . Moreover, it is also expected that the random walk on the critical cluster converges to the Brownian motion in the ISBE. The simplest model which converges to the ISBE is the range of critical branching random walks. We will show that the random walk on that graph scales to the Brownian motion in the ISBE. Joint work with Gérard Ben Arous and Alex Fribergh.