

---

# Hutchcroft trick and Schramm's lemma in critical percolation.

Antoine Padva Godin<sup>\*1</sup>

<sup>1</sup>Institut de Mathématiques de Marseille – Centre National de la Recherche Scientifique : UMR7373,  
Ecole Centrale de Marseille : UMR7373, Aix Marseille Université : UMR7373 – France

## Résumé

Schramm's Lemma had initially generated much hope in the study of critical percolation (and the attempt of proving  $p_c < p_u$  for non-amenable graph). In the light of a new proof from Tom Hutchcroft we might understand the reason for this failure. Nevertheless Schramm's Lemma remains a powerful tool to obtain exponential decay and we'll present an application to biased random walk on the supercritical cluster of Bernoulli percolation.

---

\*Intervenant