## Building your path to escape from home

**Rodrigo Ribeiro** <sup>1</sup>, D. Figueiredo<sup>2</sup>, G. Iacobelli<sup>3</sup> R. Oliveira<sup>4</sup>, B. Reed<sup>5</sup>

In this talk we introduce one of the simplest conceivable model of a random walk that can modify its domain. The model works as follows: before every walker step, with probability p a new leaf is added to the vertex currently occupied by the walker. We discuss questions related to the walker such as the speed it moves away from its initial position and how its neighborhood may looks like asymptotically. This is a joint work with D. Figueiredo, G. Iacobellu, R. Olivera and B. Reed.

 $<sup>^{1}</sup>$  IMPA

 $<sup>^2</sup>$  Univerisdade Federal do Rio de Janeiro (UFRJ)

 $<sup>^3</sup>$  Univerisdade Federal do Rio de Janeiro (UFRJ)

<sup>&</sup>lt;sup>4</sup> IMPA

 $<sup>^3</sup>$  McGill university