

## PROOF OF CONCEPT

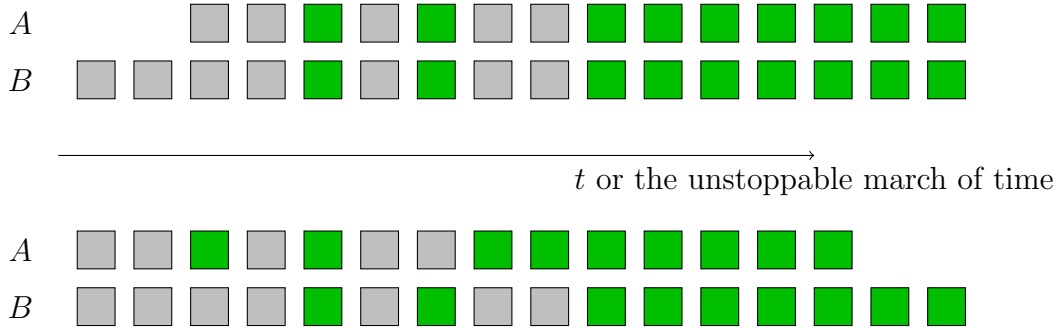


FIGURE 1. A figure that is supposed to illustrate something.

**Theorem 1.** *For every permanent couple  $C$ , the state graph of  $C$  forms a zipper.*

*Proof.* Stare blindly onto Figure 1 until you're convinced that the theorem is true. But feel free to keep reading if that never happens. Consider  $C = (A, B)$  an arbitrary permanent couple. Then, let  $M$  be any matching consistent with  $C$ . Let us explain. At the beginning of the matching, every node is single, and then over time, nodes match with another, being temporarily removed from the graph. But with some probability, each partial matching will dissolve and the two nodes will return to the graph separately. With the remaining probability, the match will be permanent, or equivalently, the separation time  $\tau_s$  would be at least the death time  $\tau_d$ , its natural upper bound. The process might occur at discrete  $t_1, t_2$ , timesteps,  $t_3$ , or perhaps continuously  $\int$  over time  $\partial\tau$ , we do not know and it will be irrelevant for the proof. In any case, at said instant of time  $\tau$ , it happens that Alice and Bob are together, and they don't split up until death. It follows then, that if  $\tau_m$  is the instant in time at which  $C$  met, then for all days  $d < \text{day}(\tau_m)$  it was the case that the lights were off. Then, they're on for the first time at  $\text{day}(\tau_m)$ , and start intermitently lighting off and on, depending on the jointness of couple  $C$  over time. In terms that pretend some formality:

$$\text{state}(d) = \begin{cases} 1 & \text{if } \int_{d_0}^{d_{\text{end}}} \int_{\vec{x} \in \Omega} A(\vec{x}, t) \times B(\vec{x}, t) \, d\vec{x} \, dt \\ 0 & \text{fucking otherwise...} \end{cases}$$

The reader might now rightfully object that we haven't proved anything. Fair enough, go on and believe whatever the fuck you want, but you must admit I showed you a picture. □