So it follows that:

need to assume finite # of connected components.

This func is as equal to 0 ∀ε larger than some ε as t_j to lie in the same connected component

If $\sum_{j=1}^{M} \cancel{t_j}$

$t_j \to t$.

If $I[A_{t_j}] \to I[A_{t_0}]$

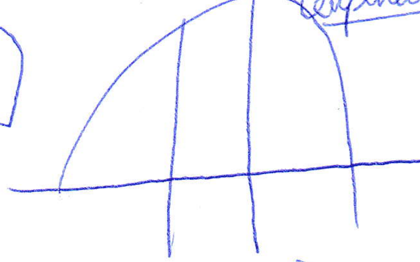
then $\cancel{I[A_{t_j}]}$

expected value of this is just $\mathbb{E}[M_i(D)\, I[A_{t_0}]]$

$$\frac{\mathbb{E}\left[\;\right]}{\mathbb{E}\left[\sum^{M_i(D)} I\right]}$$

for small ε

t_j to lie in the same connected component



$$\sum^{M_i(D)} I[A_{t_j} \text{ holds}] = \left(\sum_{j=1}^{M_i(D)} I[A_{t_0}]\right) + \left(\sum_{j=1}^{M_i(D)} \left(I[A_{t_j}] - I[A_{t_0}]\right)\right)$$

need to show that $I[A_{t_j}] - I[A_{t_0}]$ is small!