

## **Limit theorems for a rumor process with random stifling**

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### **Abstract:**

We propose a generalization of the Maki-Thompson rumour model by assuming that each spreader ceases to propagate the rumour right after being involved in a random number of stifling experiences. We consider the process with a general initial configuration and establish the asymptotic behaviour (and its fluctuation) of the ultimate proportion of ignorants as the population size grows to  $\infty$ . Our approach leads to explicit formulas so that the limiting proportion of ignorants and its variance can be computed. Joint work with E. Lebensztayn and F. P. Machado from IME-USP.