

Hello, my name is Juju, but call me J . I am rather dependent on time τ . Therefore my status at time τ is denoted by J_τ where $0 \leq \tau < \infty$. I like to be integrated as one, such that:

$$(1) \quad \underbrace{\text{Integral}}_{\text{Juju}} = \int_0^\infty J_\tau d\tau = 1$$

My actions are denoted sometimes by S with mean λ and variance σ^2 , thus my time-dependent personality can be described by the following partial differential equation:

$$(2) \quad 0 = - \left(\frac{\partial}{\partial S} J(S, \tau) \right) \lambda S + \frac{1}{2} \frac{\lambda^2 S^2}{\sigma^2} - \frac{\partial}{\partial \tau} J(S, \tau) + \frac{1}{2} \sigma^2 \frac{\partial^2}{\partial S^2} J(S, \tau),$$

Thank you and have a lovely day.