

## **Stochastic approximation of gamma processes in random media and their applications in degradation**

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Gamma processes are particular cases of Lévy processes. They evolve by jumps and have an increasing path. This is the reasons why they are useful in degradation of materials and items in real applications. The aim of this presentation is to approximate gamma processes by a diffusion process. In fact, as the gamma process is an increasing one, the diffusion approximation requires an average approximation first. This averaged process will serve as an equilibrium to the initial gamma process.

### **Reference**

S. Bocharov, N. Limnios, Normal Deviation of Gamma Processes in Random Media, Submitted.