Information transfer in the probability space

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Decay dynamics is examined in association with negative-binomial probability distribution. For this purpose, the generation number is considered continuous in order to form a proper wave equation. In particular, the cascaded information transfer is exmained as regards both forward and backward direction in the number variable. The probability and its variants weighted either by number or by epoch varaible is considered. As a consequence, implications in quantum optics and particle physics can thus be deduced. For this matter, information transfer through layered nano-superstructures is analyzed. The role of the Bose-Einstein statistics can thus be emphasized in its relationship to the Poisson processes.