# Population Dynamics Influenced by Colored Noise

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On the basis of the model of interacting populations [1,2] we discuss the influence of fluctuations on the population behavior. Because of the fluctuations one has to use probabilistic description of the system of populations. In our previous work we have studied the influence of additive white noise [3], and the influence of multiplicative white noise [4] on the dynamics of the population. In this presentation we shall discuss several results connected to the influence of colored noise of population dynamics. As in this case the reduction of the system of model equations to a Fokker-Planck equation is not possible we shall use an approximation for the equation of the PDF function that is similar to a kind of closure in the theory of turbulence.

## References

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