Recently, the analysis of the flocking behavior has become more accurate. These researches make us reconsider the notion of the neighborhood for the theoretical model. Topological distance has the property to be regarded as one of candidates to solve this problem. The notion of topological distance shows that birds never interacts with his neighbors in the neighborhood in a certain length ("metric distance"), but interacts with nearest 1st - 7th neighbors. The metric-topological interaction model, that is MTI model, is presented to unite these two different notions of the neighborhood. The agent of the MTI model creates their noise from agent’s interactions. This model succeeded in explaining the experimental flocking behavior that was researched by Cavagna et al. This result shows the importance of noise for the agents moving as one flock. Additionally, we discuss the difference between the type and token cognition dealing with their noise in the flock.

Reference and Literature for Further Reading