

1077-34-2231      **Faina Berezovskaya\*** (fberezovskaya@howard.edu), 6 Str., ASB-B, Mathematics Department,  
Howard, Washington, DC 20059. *On the asymptotic behavior of the solutions to the replicator  
equation.*

Considering dynamics of selection systems (Lotka-Volterra ‘type) and the corresponding replicator equations we apply Newton polygon method for finding the asymptotic behavior of the solutions. We show that under conditions of non-degeneracy trajectories of the systems have power asymptotes which are defined with the help of edges and vertexes of Newton polygon. Results are complete when interaction matrix has rank 1 or 2 and can be extended for higher rank by methods of Power Geometry. Examples of selection systems are discussed. (Received September 21, 2011)