**An Evolutionary Justification of the Emergence of Leadership Using Mathematical Models**, Daniel Solow, Joseph Szmerekovsky, and Sukumarakaru Krishnakuma, *Mathematics*,Special Issue on Mathematical Modeling and Optimization, **9(2271)**, 2021.

The value and importance of leadership is evident by its prevalence throughout human societies and organizations. Based on an evolutionary argument, models are presented here that provide a mathematical justification as to how and why leadership arose in the first place and then persisted. In this setting, by a l*eader* is meant a person whose overall actions are ultimately responsible for the well-being and survival of the group. The proposed models contain parameters whose values reflect group size, harshness of the environment, diversity of actions taken by individuals, and the amount of group cohesion. Mathematical analysis and computer simulations are used to identify conditions on these parameters under which leadership results in an increased survival probability for the community.