

Mathematical Model for Defection between Two Political Parties

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Abstract : Formation and change or decamping from one political party to another have now become a common trend in Nigeria. Many of the parties' members who could not secure positions and or win elections in their parties or are not very much satisfied with the trends occurring in the party's internal democratic principles and mechanisms, change their respective parties. This paper developed/presented and analyzed the used of non linear mathematical model for defections between two political parties using epidemiological approach. The whole population was assumed to be a constant and homogeneously mixed. Equilibria have been analytically obtained and their local and global stability discussed. Conditions for the co-existence of both the political parties have been determined, in the study of defections between People Democratic Party (PDP) and All Progressive Congress (APC) in Nigeria using numerical simulations to support the analytical results.

Keywords : model, political parties, defection, stability, equilibrium, epidemiology

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