Abstract Submitted for the MAR07 Meeting of The American Physical Society

What decides if a smarter army can win a battle? LINDA SHANA-HAN, State Univ of New York at Buffalo, SURAJIT SEN<sup>1</sup>, State University of New York at Buffalo — We study the kinetics associated with a "war" in which an attacking army attempts to win over a spatially dispersed defender on a 2D lattice. The levels of engagement are comparable in our study. The conflicting parties can annihilate, win or lose at any given site depending upon certain preselected rules of engagement. The attacker possesses higher intelligence, which is manifested through the moves of the attackers. We show that an "intelligent" attacker with subcritical number of attackers cannot win in the engagement.

<sup>1</sup>Supported by UB2020 Scholar's Fund at SUNY-Buffalo

Surajit Sen State Univ of New York at Buffalo

Date submitted: 28 Nov 2006

Electronic form version 1.4