

1116-VM-2074 **Mark J Panaggio*** (panaggio@rose-hulman.edu) and **Daniel M Abrams**. *Not so sinister after all: How mathematical models can explain the resilience of the left-handed minority.*

Every human population in recorded history has been predominantly right-handed, and although numerous explanations for individual handedness have been proposed, none of these explanations can account for this population-wide bias. In this talk, I will present a mathematical model of competition between social groups that can explain why most humans are right-handed, why most animals are not, why left-handed athletes overachieve in baseball and why they underachieve in golf. This model approximates a population of left- and right-handed individuals as a dynamical system. I will analyze the equilibrium states in this system and demonstrate that mathematical models balancing competition and cooperation can provide insight into our right-handed world. (Received September 21, 2015)