



**GDRR Program Opening Workshop
August 5-9, 2019**

SPEAKER TITLES/ABSTRACT

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“Evolutionary Games and Adversarial Systems - Fundamentals and New Directions”

This talk will present an overview and summary of some of the fundamental aspects of evolutionary game theory, focusing on mathematical approaches taken to modeling mutually competitive interactions using differential equations and agent-based models. We will discuss social dilemmas that can occur when individual, selfish motivations conflict with the common or public good, as well as developments to meet these challenges. We will also address the role of individual connectedness on strategy evolution, ranging from random associations in well mixed populations to specified interactions in fixed or evolving networks. Along the way, we will highlight differences and similarities between decision makers and game players in these contexts.