

ICTS MONTHLY COLLOQUIUM

# Personality and social influence in strategic decision-making

Humans are highly social and cooperative. But how do our social ties sustain cooperation in the face of the temptation to pursue our own self-interest? And how do our individual personalities influence cooperation in groups? Social dilemmas that pit the interest of the individual against that of their wider social group are often modelled using strategy games such as the prisoner's dilemma and the public goods game, where cooperation favours the group while the individual's immediate economic interest is best served by withholding it.

I will present results from simulations and experiments that investigate the effects of social influence, social network structure and personality on decision-making in these economic games, including a multiplex network model that suggests social behaviour is more important than economic incentives in maintaining cooperation and an experiment investigating how the personality composition of groups affects the extent to which they cooperate.

## Rebecca Hoyle

Hoyle is a professor of mathematics researching in evolutionary biology, mathematical psychology, dynamics on social networks and molecular motor dynamics. Her recent work focuses on the effect of empathy and emotion in strategy decisions, cooperation in social networks, the evolution of maternal effects in response to environmental change and the mechanism of DNA unwinding by the eukaryotic replicative helicase. She has also studied what makes researchers creative and why, and how collaboration and interdisciplinarity lead to new ideas and has performed stand-up comedy inspired by her research.

3.30 pm,  
10 May 2021

ONLINE COLLOQUIUM

Use this link to join the Zoom meeting -  
<https://bit.ly/ictsMCmay21>

Meeting ID : 942 7974 0479

Passcode : 555512

