

# ADVERSE EVENTS, VACCINE SCARES, AND INDIVIDUAL VACCINATION CHOICE – MODELLING USING EVOLUTIONARY GAME APPROACH

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Rumours on adverse health outcomes either from infection or vaccination have strong impact on vaccination uptake. Understanding human behavioral responses during a vaccine scare and its interactions with the population dynamics of disease play key role in predicting the dynamics of disease, designing intervention strategies and policymaking in public health program. Mathematical modelling is an important tool for investigating and quantifying such effects in infectious disease and control.

In the first part of my talk, I will introduce evolutionary game models of vaccination dynamics in homogeneous population to describe how human attitude changes towards vaccination during a scare using empirical data of several vaccination coverage. In the second part, I will introduce vaccination game on social network to discuss how rare but severe events can impact the vaccination dynamics.

## REFERENCE

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