

S03: Recent Advances on the Mathematical and Numerical Modeling of Epidemics Organizers: Nicola Parolini, Andrea Pugliese and Ezio Venturino***Part I - Monday, August 28th***

| Time | Speaker | Name of the talk |
|-------------|------------------|---|
| 15:45-16:10 | Mimmo Iannelli | Understanding and Controlling COVID-19: classical methods for current challenges |
| 16:10-16:35 | | |
| 16:35-17:00 | Francesca Acotto | Two epidemic models with cautionary response in the presence of asymptomatic individuals |
| 17:00-17:25 | Alessio Oliviero | On the control of SEIR models in epidemiology |
| 17:25-17:50 | Mattia Sensi | A general kinetic model for the spread of infectious diseases in continuously structured compartments |

Part II - Tuesday, August 29th

| Time | Speaker | Name of the talk |
|-------------|--------------------|---|
| 10:45-11:10 | Francesca Scarabel | Numerical methods for time since infection models in public health |
| 11:10-11:35 | | |
| 11:35-12:00 | Simone De Reggi | A numerical method for the stability analysis of linear age-structured models with nonlocal diffusion |
| 12:00-12:25 | Piero Manfredi | After COVID-19: remarks on pandemic control |
| 12:25-12:50 | Lorenzo Pellis | Novel methods for the analysis of household-stratified infection data |
| 12:50-13:15 | Sara Sottile | A geometric analysis of the SIRS model with secondary infections |

Part III - Tuesday, August 29th

| Time | Speaker | Name of the talk |
|-------------|---------------------|---|
| 15:45-16:10 | Vincenzo Capasso | Predators as a possible strategy for controlling a Xylella Fastidiosa epidemic |
| 16:10-16:35 | | |
| 16:35-17:00 | Giulia Bertaglia | Solving inverse and forward problems of multiscale epidemic spread with neural networks |
| 17:00-17:25 | Jonathan Franceschi | Optimal control on a kinetic epidemic model with uncertain social features |
| 17:25-17:50 | Giovanni Ziarelli | Enhanced methods for reliable predictions and for epidemic control |
| 17:50-18:15 | Nadia Loy | Modelling the role of individuals' viral load in the spread of infectious diseases |