

**GCRF-EPSRC UK-APASI Program**  
**UK-Africa Postgraduate Study Institute in Mathematical Sciences**



**WORKSHOP 2: 22-24 February 2021**

**Infectious Tropical Disease and COVID-19 Modelling: Towards disease control policies supported by scientific evidence and mathematics of public policy**

**Monday 22<sup>nd</sup> February 2021**

09:30 – 09:45	<b>Joining</b>	<b>Workshop login</b>
09:45 – 09:55	<b>Welcome</b>	<b>Madzvamuse, A. Holligan, L.</b>
10:00 – 10:45	<b>Lecture 1:</b> Julien Arino	<b>Title:</b> <a href="#">Assessing the risk of COVID-19 importation and the effect of quarantine</a>
10:45 – 11:00	<b>Break</b>	
11:00 – 11:45	<b>Lecture 2:</b> Jasmina Panovska-Griffiths	<b>Title:</b> <a href="#">Modelling COVID-19 transmission and the impact of different interventions on the UK epidemic</a>
11:45 – 13:00	<b>Lunch</b>	
13:00 – 13:45	<b>Lecture 3:</b> William Waites	<b>Title:</b> <a href="#">Coupling within-host and population dynamics of epidemics with stochastic graph rewriting</a>
13:45 – 14:00	<b>Break</b>	
14:00 – 14:45	<b>Plenary Lecture:</b> Istvan Z. Kiss.	<b>Title:</b> <a href="#">The timing of one-shot interventions for epidemic control</a>
14:45 – 15:00	<b>Break</b>	
15:00 – 15:45	<b>Summary of the Day</b>	<b>Panelists:</b> Panovska-Griffiths, Arino and Waites
15:45 – 16:30	<b>Breakout Rooms</b>	<b>Informal discussions and networking</b>
16:30	<b>End of Day 1</b>	

**Tuesday 23<sup>rd</sup> February 2021**

09:45 – 09:55	<b>Welcome</b>	<b>Workshop login</b>
10:00 – 10:45	<b>Lecture 4:</b> Jasmina Panovska-Griffiths	<b>Title:</b> <a href="#">Statistical analysis to identify risks groups of COVID-19 and to explore whether COVID-19 symptoms vary by age</a>
10:45 – 11:00	<b>Break</b>	
11:00 – 11:45	<b>Lecture 5:</b> Zindoga Mukandavire	<b>Title:</b> <a href="#">Introduction to modelling</a>
11:45 – 13:00	<b>Lunch</b>	
13:00 – 13:45	<b>Lecture 6:</b> Jane White	<b>Title:</b> <a href="#">Incorporating behavioural change in models for infection dynamics</a>
13:45 – 14:00	<b>Break</b>	
14:00 – 14:45	<b>Lecture 7:</b> Farai Nyabadza	<b>Title:</b> <a href="#">Models vs policies: Challenges and possible expositions</a>
14:45 – 15:00	<b>Break</b>	
15:00 – 15:45	<b>Summary of the Day</b>	<b>Panelists:</b> Panovska-Griffiths, Mukandavire, White, Nyabadza
15:45 – 16:30	<b>Breakout Rooms</b>	<b>Informal discussions and networking</b>
16:30	<b>End of Day 2</b>	

### Wednesday 24<sup>th</sup> February 2021

09:45 – 09:55	<b>Welcome</b>	<b>Workshop login</b>
10:00 – 10:45	<b>Lecture 8:</b> Eduard Campillo-Funollet	<b>Title:</b> <i>Parameter estimation of SIR models</i>
10:45 – 11:00	<b>Break</b>	
11:00 – 11:45	<b>Lecture 9:</b> Istvan Kiss	<b>Title:</b> Exact and approximate epidemic models on networks.
11:45 – 13:00	<b>Lunch</b>	
13:00 – 13:45	<b>Lecture 10:</b> Graeme Ackland	<b>Title:</b> Modelling and Data Challenges in a Pandemic
13:45 – 14:00	<b>Break</b>	
14:00 – 14:45	<b>Lecture 11:</b> John H. Njagarah	<b>Title:</b> Sensitivity analysis of parameters of an epidemic model
14:45 – 15:00	<b>Break</b>	
15:00 – 15:45	<b>Summary of the Day</b>	<b>Panelists:</b> Campillo-Funollet, Kiss, Ackland and Njagarah
15:45 – 16:30	<b>Breakout Rooms</b>	<b>Informal discussions and networking</b>
16:30	<b>End of Workshop 2</b>	

### **Upcoming UK-APASI Dates**

- **15 - 17 March 2021**  
*Mathematical Modelling of Biological Systems. Numerical analysis and High Performance Scientific Computing*
- **12 - 14 April 2021**  
*Statistical methods for data analysis, model and parameter estimation*
- **24 - 26 May 2021**  
*Crime modelling in Sub-saharan Africa and Financial Mathematics*
- **28 - 29 June 2021**  
*Research Group Presentations*