

Monday January 17th	Tuesday January 18th	Wednesday January 19th	Thursday January 20th	Friday January 21st
<p>9:00 am</p> <p>General introduction to mathematical modelling: concepts, objectives and main classes of epidemic models (population vs individual based, deterministic vs stochastic, spatial models).</p> <p>Instructor: E. Vergu (INRAE)</p>	<p>9:00 am</p> <p>The basic reproduction number (R0): defining the concepts and expression derivation. Exercises.</p> <p>Instructor: N. Hozé (Institut Pasteur)</p>	<p>9:00 am</p> <p>Introduction to the methods and issues surrounding parameter estimation in epidemic models (1): general concepts and main objectives.</p> <p>Instructor: N. Hozé (Institut Pasteur)</p>	<p>9:00 am</p> <p>Network and metapopulation models. Why networks are interesting tools in epidemiological contexts ? Lab: Network visualization with R and shiny.</p> <p>Instructor: P. Crépey (EHESP)</p>	<p>9:00 am</p> <p>What can we learn from mathematical models? Unnaturally-born outbreaks as an example (1): general concepts and main objectives.</p> <p>Instructor: E. Vergu (INRAE)</p>
12:00 pm Lunch	12:00 pm Lunch	12:00 pm Lunch	12:00 pm Lunch	12:00 pm Lunch
<p>1:00 pm - 4:00 pm</p> <p>Building SIR-like epidemic models: various structures for various situations.</p> <p>Instructor: E. Vergu (INRAE)</p>	<p>1:00 pm - 4:00 pm</p> <p>Predicting the effect of interventions with the reproduction number.</p> <p>Instructor: N. Hozé (Institut Pasteur)</p>	<p>1:00 pm - 4:00 pm</p> <p>Introduction to the methods and issues surrounding parameter estimation in epidemic models (2): practical aspects.</p> <p>Instructor: N. Hozé (Institut Pasteur)</p> <p>4:30 – 6:30 pm : French classes</p>	<p>1:00 pm - 4:00 pm</p> <p>Lab : Using GleanViz, an epidemic simulator able to capture the worldwide spreading of diseases, to answer public health questions.</p> <p>Instructor: P. Crépey (EHESP)</p>	<p>1:00 pm - 4:00 pm</p> <p>What can we learn from mathematical models? Unnaturally-born outbreaks as an example (2): articles reading and practical aspects.</p> <p>Instructor: E. Vergu (INRAE)</p>