

# Mathematical epidemiology of infectious diseases: a bird's eye view

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The aim of the lecture is to sketch, for the interested mathematical outsider, a rough picture of

- the 'language' for formulating
- mathematical models of the host population level dynamics of an infectious disease
- the toolkit for analysing such models
- the epidemiological insights obtained by doing so

More details can be found in

## References

- [1] O. DIEKMANN, H. HEESTERBEEK, AND T. BRITTON, *Mathematical Tools for Understanding Infectious Disease Dynamics*, Princeton University Press, Princeton, NJ, (2012).
- [2] D. BREDÁ, O. DIEKMANN, W. F. DE GRAAF, A. PUGLIESE, AND R. VERMIGLIO, *On the formulation of epidemic models (an appraisal of Kermack and McKendrick)*, *J. Biol. Dynamics*, 6(sup2):103–117, (2012).