

Immuno-Epidemiological Modeling of Infectious Diseases: A careful attempt at a review

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This talk introduces the concept of multi-scale modeling as applied to infectious diseases. The talk concentrates at the interface of coupling within-host and between-host dynamics of pathogens. We discuss why use such models and what questions can be addressed by such models. We review the basic modeling techniques in this context known up to date. We focus more on the ODE, PDE immuno-epidemiological modeling. The talk is meant as an introduction to the topic.