

Contribution ID: 485

Type: **Poster Presentation**

State estimators for a class of epidemiological systems

We consider a class of epidemiological models that includes most well-known dynamics for directly transmitted diseases, and some reduced models for indirectly transmitted diseases. We propose a simple observer that can be applied to models in this class. We analyse and implement this observer in two examples: the classical SIR model, and a reduced Bailey-Dietz model for vector-borne diseases. In both cases we obtain arbitrary exponential convergence of the observer. For the latter model, we also apply the observer with real data.

Primary authors: SOUZA, Max (Universidade Federal Fluminense); Dr IGGIDR, Abderrahman (Inria, Université de Lorraine, and CNRS)

Presenter: SOUZA, Max (Universidade Federal Fluminense)

Session Classification: Placeholder

Track Classification: Disease - infectious