Code Review Checklist

Most important before paper

Important every session

Unclear

Usability	**Comments (at least Yes / No)**
Is the code easy to install? Are there setup instructions and a list of requirements?	No instructions provided but clear separate codes for each of the models used in the papers
Is there an example script or a full pipeline that is easy to run and understand?	no
Data preparation	
Are data loading and analysis implemented as separate steps? Ideal: have a data loader class	No data loader class, no data loader function
Is ALL data used available in the cluster	Data not provided
Analysis & Plotting	
Are the different steps of the analysis clearly identified in the README?	No
Does the analysis code reflect what is described in the paper? If applicable	Not checked
Is it clear what code is used to create each of the figures or panels in the paper?	Yes, within plots.py, the snippets for individual figures can be easily identified ; would be better to have them as functions
Code quality	
Project in periodically updated in github, gitignore, README	No gitignore
Project structure: folders: data, notebooks, scripts, figures	Largely well-organized into data, figures, models, and results
Is the code well organized (functions, classes, modules, settings, ... as applicable)?	Partially
Are all functions and classes documented?	Needs more comments, docstrings; Codes corresponding to some of the models have been well-commented; however, some of the snippets under models could be commented better and rendered more readable

Are some values hardcoded?	Yes, but minimum and in alignment with the experiments
Can any of the code be replaced by existing packages?	Most of the models (HMM, HGF, kalman filter, and PID) are widely available via libraries, which could be leveraged rather than coding from the scratch
Are there any obvious optimisations that will improve performance?	Utilizing built-in functions wherever possible
Is there any redundant code that should be removed?	Not observed
Does the code agree with basic style guidelines (e.g. PEP8 for Python)	Mostly
Variables names are self explanatory (eg no a, b, c etc)	Yes
Are there any passwords in the repo or exposed in the code?	No
Is any identifying information unwillingly exposed?	Not observed per se