Tutorial A - Hierarchical Gaussian filter (HGF)

Content

In this tutorial, we will recap the theory behind the Hierarchical Gaussian Filter (HGF) and introduce the model in an accessible way. We will then discuss practical issues when fitting computational models to behavioral data in general and specific to the HGF. We will work through exercises to learn how to analyze data with the HGF using the HGF Toolbox (in Julia and Python).

Installation guide

For the Hierarchical Gaussian Filter (HGF) tutorial, we will be coding together in Google Colab, a web-based platform where users can run code in an interactive, notebook-style environment. You can think of Colab Notebooks as Jupyter notebooks that are saved on Google Drive. The programming language used in this tutorial is Julia and we will be mainly using the brand new HGF Julia package to simulate and fit data with the HGF. Because everything in Google Colab is cloud-based, **you don't need to install anything (not even Julia) locally** – the only requirement to use Google Colab is that you have a **Google account** and are logged into it.

Further support

If you have trouble getting to this point before the Practical Tutorial Session, please consult the **#tutorial-helpdesk channel on Discord**. You will be given access to the CPC Slack workspace at the beginning of the course. Check if anyone has had the same issue and has managed to solve it and how. If no one else has encountered the same problem, post your question. We will be monitoring the channel and providing support. In addition, given the volume of attendees this year, we would be really grateful if you could assist us by answering queries on Discord yourself if you come across a problem, you know and have solved.

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