Contribution ID: **10**   Type: **Discussion**

Gaussian Processes in the current AI era

Monday 29 January 2024 15:00 (1h 15m)

Today we mainly use neural nets to solve many of our tasks. Although they give great results, they do have their shortcomings, such as the limited ability to quantify uncertainty for example. In this open session we can focus on Gaussian Processes/GPs as an alternative to neural nets in certain situations, and discuss some of the recent trends and work that has been carried out on this topic. One framework of interest is **gpytorch**, that can be used in conjunction with PyTorch to create hybrid models, such as Deep Gaussian Process models. We can address Gaussian Processes for the problem of image in-painting, or for other tasks that you've had experience with. Let's discuss tasks and settings for which Gaussian Processes are more appropriate than neural nets, as well as promising mature tools that are the state of the art when dealing with GPs nowadays.

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