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An Introduction to Gaussian Processes

Gaussian processes (GPs) are a popular machine learning tool because they allow Bayesian inference directly over functions. In these lectures, I'll give an intuitive introduction to Gaussian processes. I'll begin by focussing on regression, and by using interactive worksheets we'll build some intuition for GP methods. After lunch I'll spend some time talking about approximate methods that can help with scaling computation, as well as touching on methods like GP classification. Each lecture will include examples from the GP toolbox GPy.