**Variance-bias tradeoff exercise**

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In this additional exercise to the course FYS-STK4155 I performed an analysis of the bias-variance tradeoff using three of the methods discussed in the course: Linear Regression (OLS, Ridge and Lasso), deep learning (feed forward neural network), Ensemble method (random forest) and support vector machines.

The analysis is performed on a classification problem, as a function of the complexity of the model. Here I have used the Franke function used in the Projects 1 and 2 of the course.

The bias-variance tradeoff: