

Video: “Correlation in MATLAB” (1:30 min)

MATLAB Screen (0:00):

We've already set up the project and loaded the data. Notice we are using the functional form of load rather than the command. This is because we didn't want to call our data Daphne Islands, we wanted to define a simpler variable beaks.

Define Variables (0:17):

I'm going to try to find a relationship between child beak size and parent beak size. I'll begin by defining variable for the both of them. Since children have two parents, I'm going to average the parents beak size and define their relationship. The input to mean will be the columns 2 and 3 which are the mother and the father beak sizes respectively. I average along dimension 2. Let me save and execute. You see that the parent and child are the right size, 22x1.

Calculate the Correlation (0:50):

We'll begin our investigation by calculating the correlation between parent and child beak sizes. Correlation is a value between 1 and -1 that measures how linearly related the variables are. Matlab corr calculates the correlation. Let me use fprintf to output the correlation to the command window, I'll include an informative message. Remember I use a %g when I want to substitute a value from the argument list. I save and execute and I see that the correlations about 0.7 which indicates a relatively strong relationship.