**Learning effective ways to include computations in teaching**

I have found MATLAB computation an invaluable research tool in analyzing data and creating simple models. For students learning to carry out computations for the first time, MATLAB can be a good introductory language due to a short learning curve, well-documented help files, and online examples.

In my limited experience teaching Engineering courses so far, I have found it very useful to include computational examples in class or in problem sets. In particular, live in-class demonstrations where computational solutions are animated have been popular. A common issue that has occurred when students tried to write their own computational model or data analysis algorithm is that they often understand the algorithm/data analysis but struggle to get their code to work, or that they manage to write the code but struggle to understand its meaning.

In this workshop, I am looking forward to discussions about the best practices for teaching computations using MATLAB. The four approaches that have been identified (data analysis, modelling, building self-efficacy, and skills across the curriculum) seem like a good place to start.