

# Workshop: Parallel Computing with MATLAB and Scaling to HPC Cluster

Date: 15<sup>th</sup> October | Time: 8:30 am – 1:15 pm

Venue: SERC Auditorium

**Target Audience:** Faculties and Researchers who would like to make use of parallel computing, HPC to scale MATLAB/Simulink based algorithms.

## Workshop Parallel Computing with MATLAB and Scaling to HPC Cluster

During this hands-on, self-paced workshop, a MathWorks engineer will introduce you to parallel and distributed computing in MATLAB with a focus on speeding up your application code and offloading compute. By working through common scenarios and workflows using hands-on demos, you will gain an understanding of the parallel constructs in MATLAB, their capabilities, and some of the common hurdles that you'll encounter when using them. You'll also learn how to run your MATLAB code on local HPC resources.

### Agenda

- 08:30am Registration
- 09:00am Introductions and Overview of Workshop
- 09:05am Overview of HPC cluster and support
- 09:10am Overview of Parallel Computing with MATLAB
- 09:45am Hands-on, self-paced exercises
- 11:35am Question and Answers
- 12:00pm Running MATLAB on the cluster and submitting MATLAB parallel jobs
- 13:00pm Wrap-up

**Prerequisites:** Basic familiarity with MATLAB

### System Requirements

- Laptop with power adapter
- MATLAB R2018a or newer
- Parallel Computing Toolbox
- SSH client
- Account on HPC cluster

### Presenter Profile:



Raymond has worked at MathWorks for over 25 years, as a Quality Engineer, a Technical Consultant, and now most recently as an Application Engineer. During his time at MathWorks, he has written training courses on the MATLAB Compiler and MEX API. Raymond currently leads a small team of engineers to integrate MathWorks parallel tools with end-user's HPC cluster and cloud environments.

Raymond holds a B.S. in computer science and applied mathematics from the University of Massachusetts Boston and a M.S. in software engineering from Brandeis University.