TRAINING COURSE

INTRODUCTION TO COMSOL MULTIPHYSICS® FOR CMC

FEBRUARY 16–19
ONLINE

SCHEDULE

Day 1

11 a.m.–5 p.m.

- COMSOL Multiphysics modeling workflow
- COMSOL Multiphysics graphical user interface
- Key features of the COMSOL Multiphysics architecture
- Geometry import and geometry creation

Day 2

11 a.m.–5 p.m.

- Practical and theoretical aspects of multiphysics modeling and efficient solution techniques
- Understanding the theory behind the linear and nonlinear finite element method
- Considerations for coupling different physics together
- Adding equations and couplings to the problems
- Finding, understanding, and eliminating errors in the model
- Modeling time-dependent problems with explicit or implicit events

Day 3

- Work on exercises (no class)

Day 4

11 a.m.–5 p.m.

- More on global parameters, variables, functions, probes and nonlocal couplings
- Best practices for meshing geometry
- Use of moving and adaptive meshes
- Summary of best practices for modeling in COMSOL Multiphysics
- Results and vizualization

SUGGESTED BACKGROUND

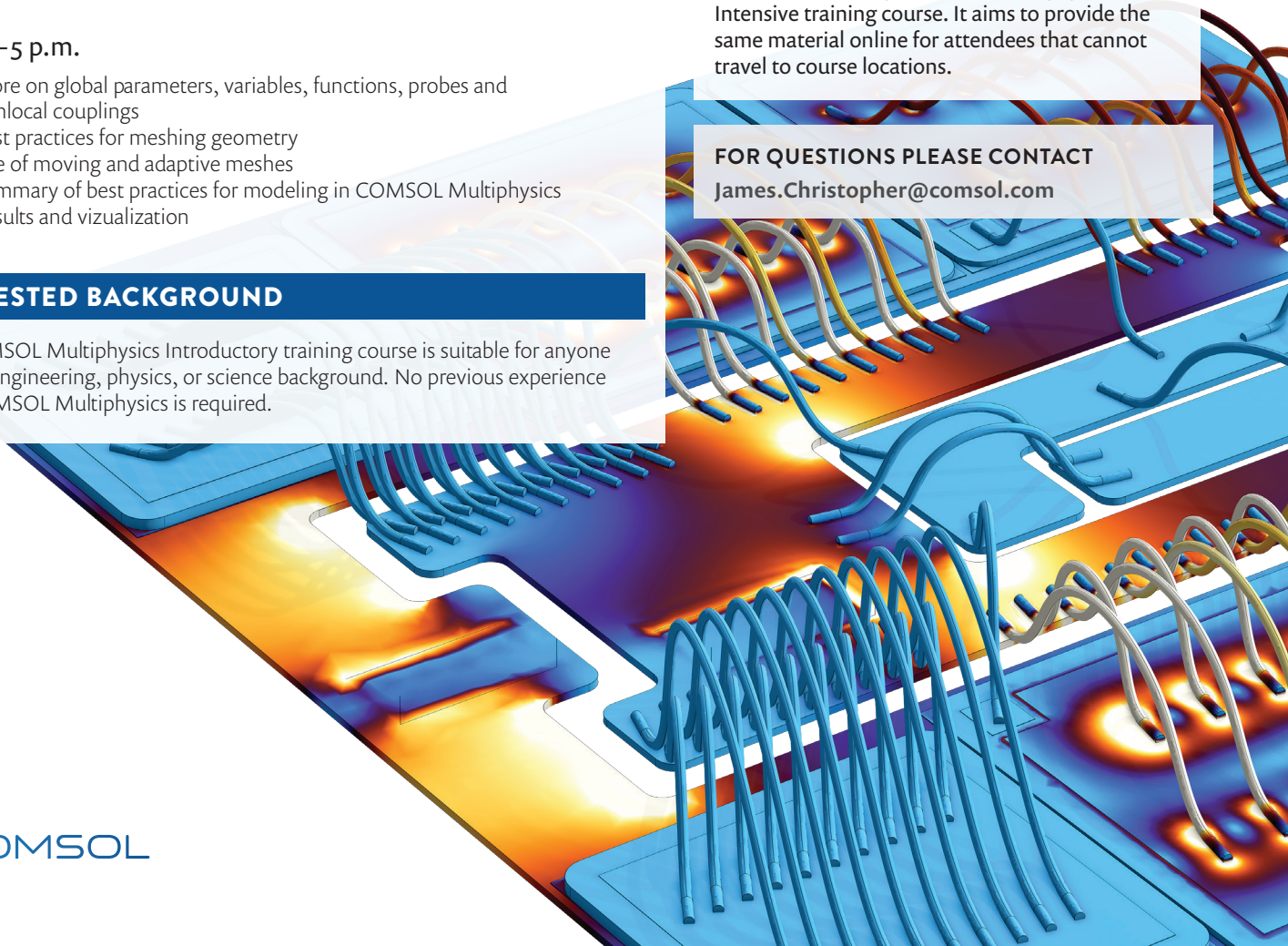
The COMSOL Multiphysics Introductory training course is suitable for anyone with an engineering, physics, or science background. No previous experience with COMSOL Multiphysics is required.

This course is the recommended starting point for learning how to use the COMSOL Multiphysics software. During this training course, you will develop a strong foundation for your future multiphysics modeling work. We start at an introductory level, leading students through the essential steps needed in all analyses (geometry creation, interactive meshing techniques, model setup, results evaluation, etc.) Then, we move into more advanced topics, such as solution techniques and multiphysics modeling.

To teach this course, we use a combination of instructor- and self-guided hands-on exercises as well as theoretical and practical lectures. The goal is to immerse you in all of the main aspects of using COMSOL Multiphysics, so that you feel comfortable working with the software. You will leave the course feeling confident that you are correctly solving your simulation problems with COMSOL Multiphysics.

After 2 days of class, there will be a 1-day gap where trainees work on assigned exercises and explore features in the software related to their own application areas. This course is the web version of the 2-day COMSOL Multiphysics Intensive training course. It aims to provide the same material online for attendees that cannot travel to course locations.

FOR QUESTIONS PLEASE CONTACT
James.Christopher@comsol.com



COMSOL