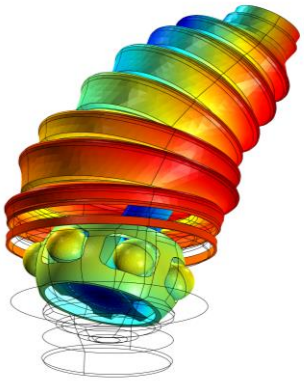


Finite Element Modeling Using COMSOL Multiphysics

Workshop

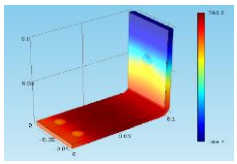
Date: Wednesday 5 th March 2014
Time: 10:00 – 15:00
Place: Laboratoire Dynamique, Interaction et Réactivité des Systèmes.
Université Kasdi Merbah, Ouargla

The COMSOL Multiphysics simulation software environment facilitates all steps in the modeling process − defining your geometry, meshing, specifying your physics, solving, and then visualizing your results.

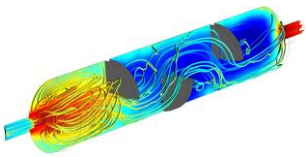
Model set-up is quick, thanks to a number of predefined physics interfaces for applications ranging from fluid flow and heat transfer to structural mechanics and electromagnetic analyses. Material properties, source terms and boundary conditions can all be arbitrary functions of the dependent variables.

Predefined multiphysics-application templates solve many common problem types. You also have the option of choosing different physics and defining the interdependencies yourself. Or you can specify your own partial differential equations (PDEs) and link them with other equations and physics.

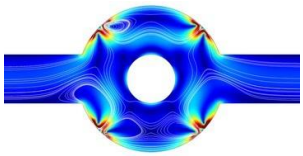
Basbar



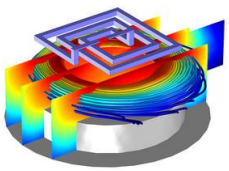
Turbulent Reactor



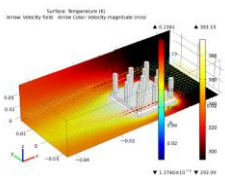
Electroosmotic Micromixer



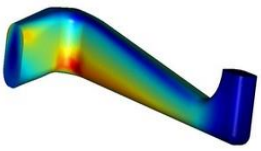
ICP Reactor



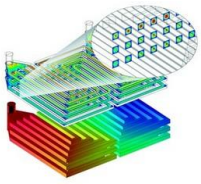
Heat Sink



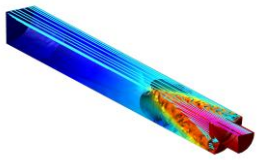
Elbow Bracket



Fuel Cell Stack



Copper Casting



The Workshop will give you an introduction to how the COMSOL software package can be applied to many different engineering fields, including Multiphysics problems. You don't need to be expert in modeling in order to appreciate the seminar. The first part will give you a general introduction to the software and examples of different application areas that can be handled. The second part will show you how to build, define, and solve a model using the COMSOL user interface.

Speakers:

- **Amr Refay, Elnady Engineering and Agencies**

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Save your seat, Register Now on: http://www.comsol.com/events/femucm/29345/

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Finite Element Modeling Using COMSOL Multiphysics
March 5, 2014

Agenda

10:00 – 11:00	Introduction to COMSOL Multiphysics
11:00 – 12:00	COMSOL Demonstration
12:00 – 12:30	**Coffee & Prayer Break**
13:00 – 15:00	Tutorials: - Parallel plate capacitor - Thermal cube - Stresses on a wrench - Heat sink - Hydrocarbon Dehalogenation in a Tortuous Microreactor - Fluid structure interaction - Electrical heating and thermal stresses in a busbar

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