CSC

# Instructions for ElmerGUI Tutorials

ElmerTeam CSC – IT Center for Science

#### **Tutorials GUI instructions**

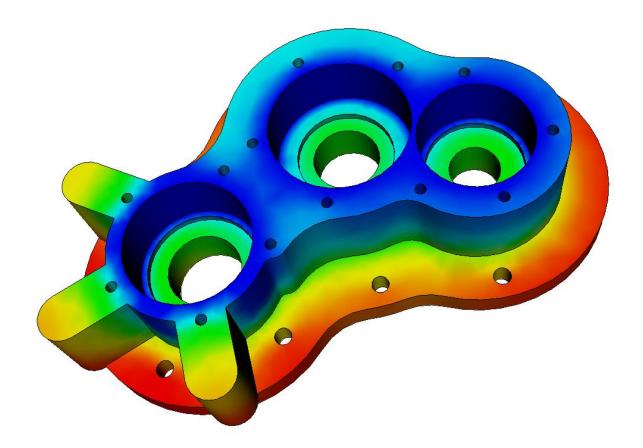
- Copy and unzip the virtual machine
- Start Virtual Machine under VMPlayer
- Input files should be available under ~/Source/elmerfem/ElmerGUI/samples
- The instructions written in verbatim refer to operations with the GUI.

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- Intendation means step in the menu hierarchy.
- Missing solver menus may be found at /usr/local/Elmer\_devel/share/ElmerGUI/ edf-extra
- To use Paraview change the Post File suffix to .vtu

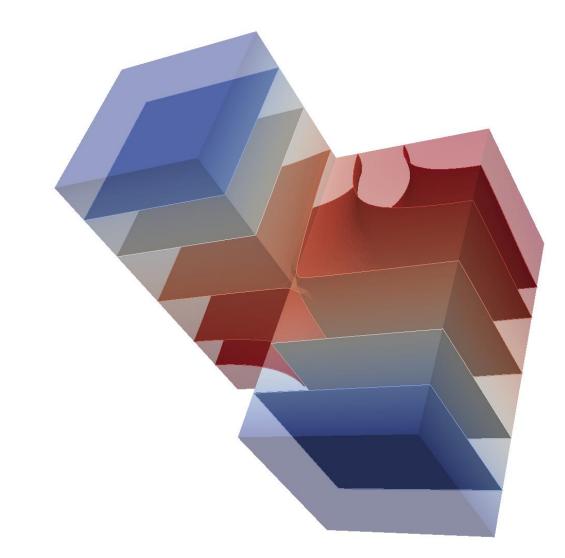
#### **1. Temperature field of a solid object**





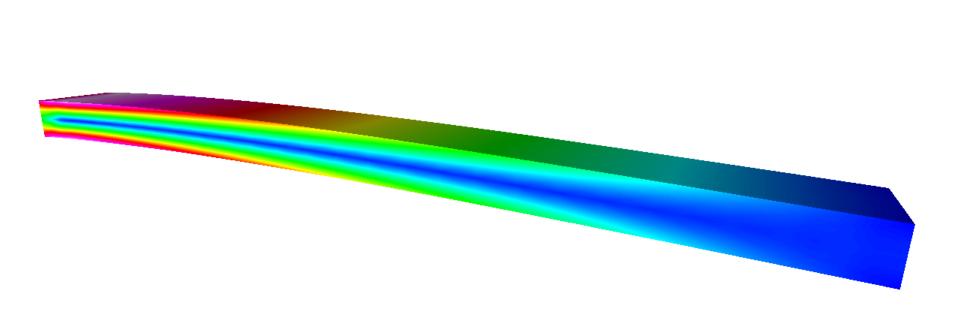
#### 2. Model PDE





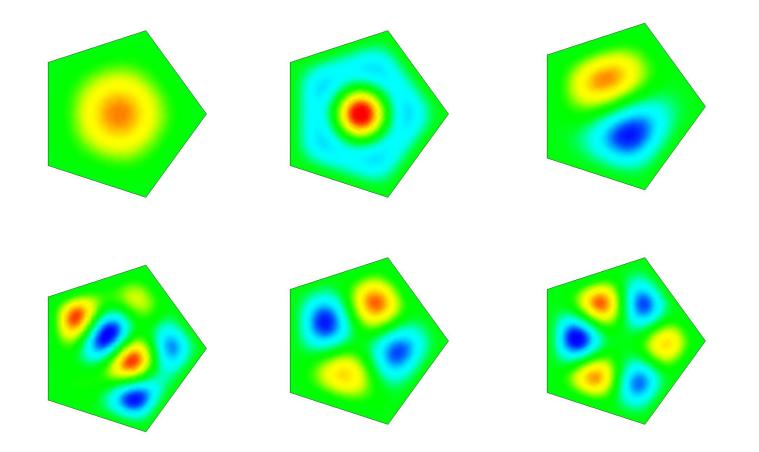
#### 3. Loaded elastic beam in 3D





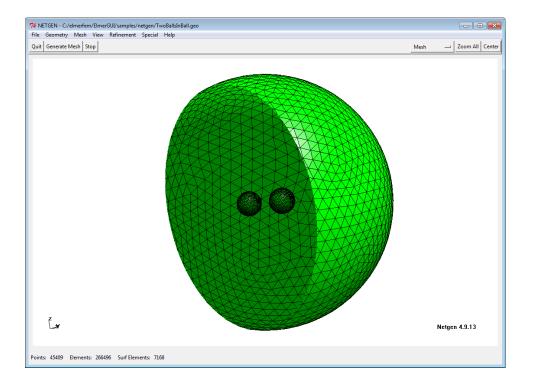
# 4. Eigenmodes of a elastic plate

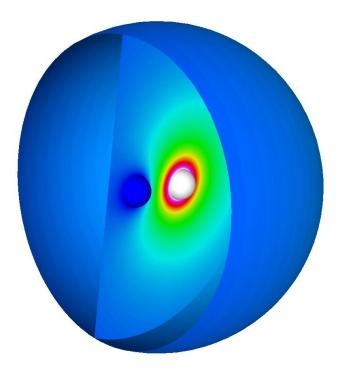




#### **5. Capacitance of two balls in free space**

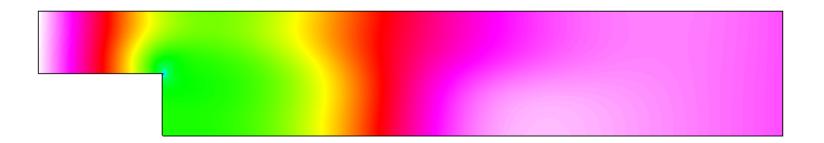


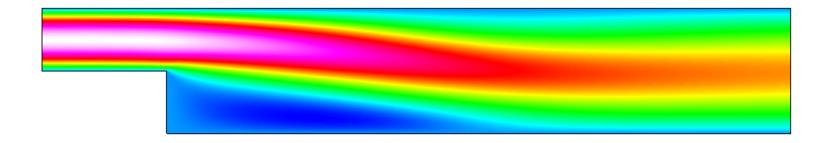




#### 6. Flow passing a step, Re=100

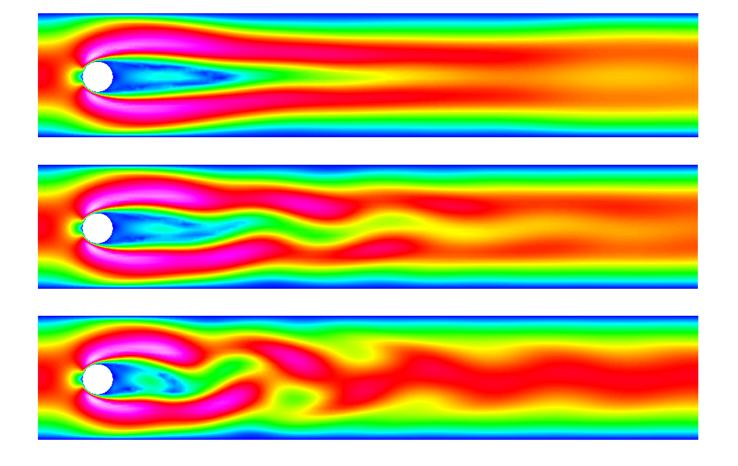






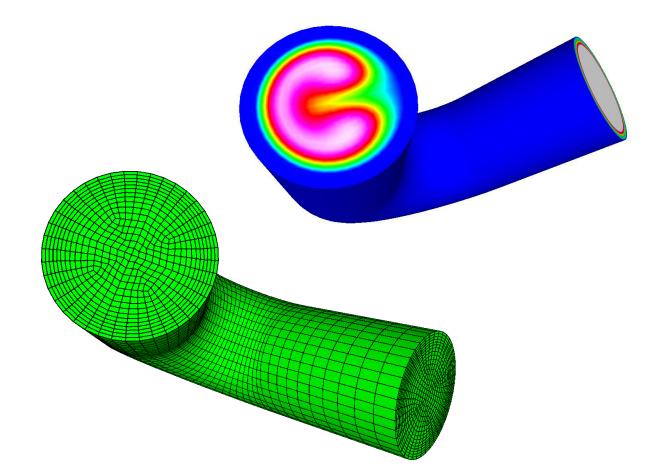
#### **7. Vortex shedding**





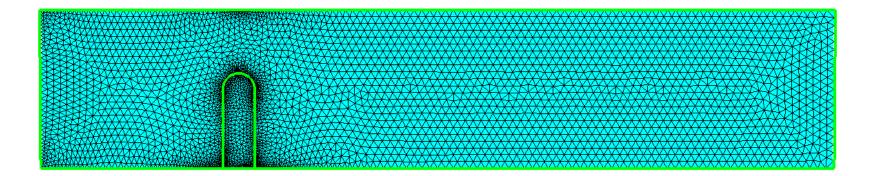
# 8. Thermal flow in curved pipe

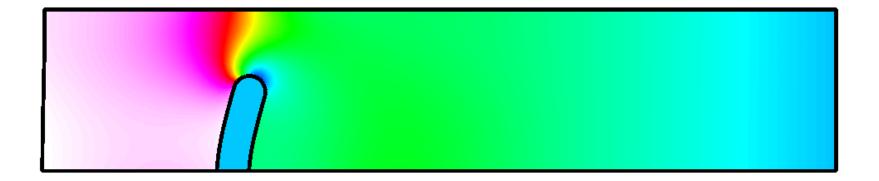




#### 9. Obstacle with fluid-structure interaction

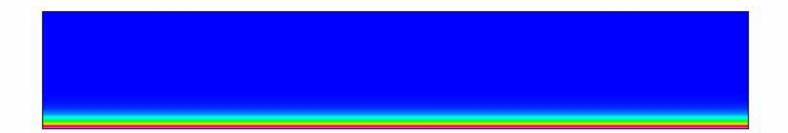






# **10. Rayleigh-Benard Instability**

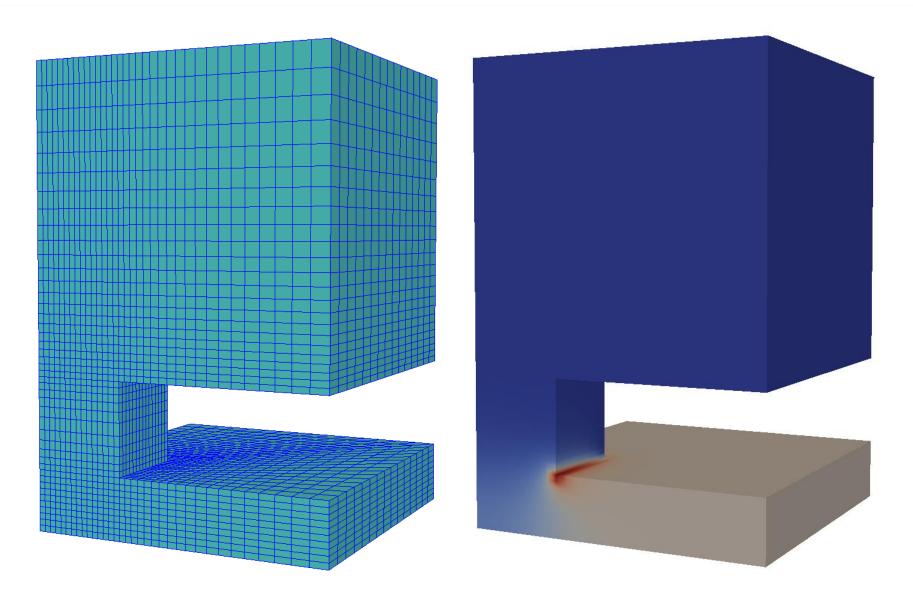




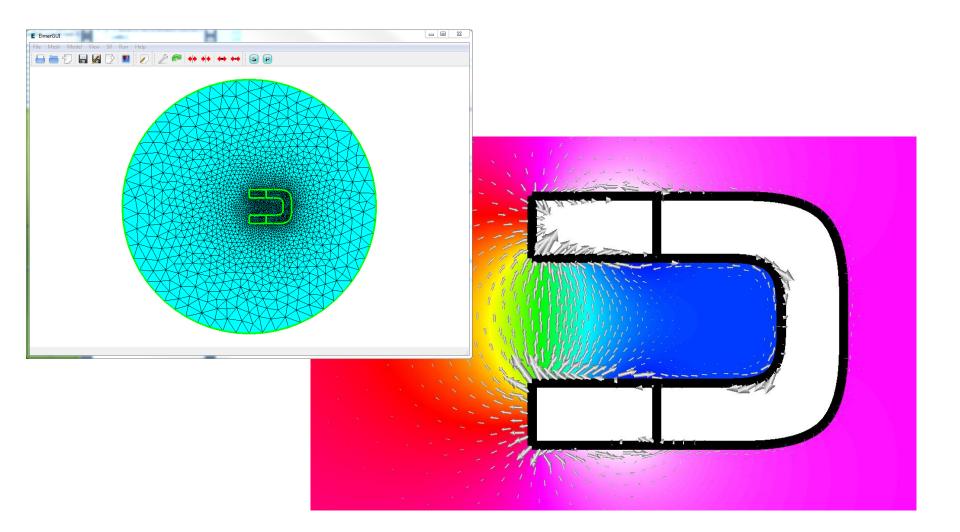


#### **11. Capacitance of a perforated plate**



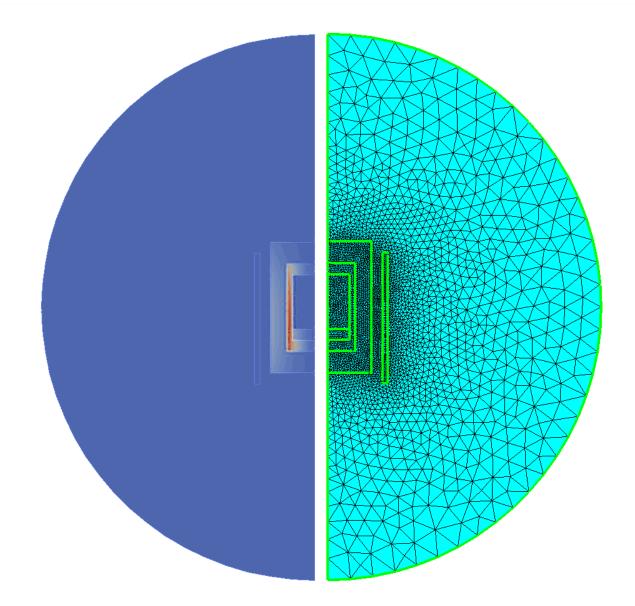


# **12. Permanent magnet shaped like a horse shoe**



#### **13. Induction heating in a graphite crucible**





# 14. Electromagnetic waves in a waveguide

