

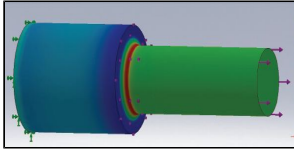
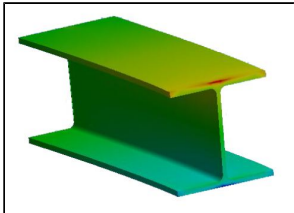
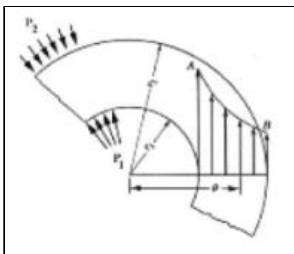
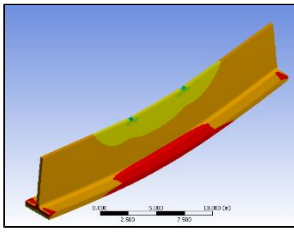
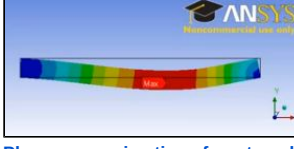
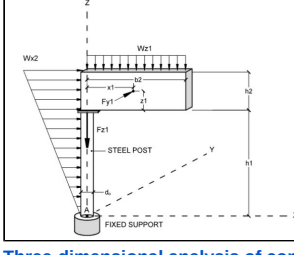
Prantil et al

ANSYS Tutorials from Prantil et al

The ANSYS tutorials below are from the following book:

- Prantil, V. C., Papadopoulos, C. and Gessler, P. D., *Lying by Approximation: The Truth About Finite Element Analysis*, Morgan and Claypool (2013).

These tutorials are for ANSYS release 14.0 and use ANSYS Workbench and ANSYS Mechanical applications.

1.	 A 3D finite element model of a stepped shaft. The shaft has a larger diameter on the left and a smaller diameter on the right. It is shown in a state of axial tension, with arrows indicating the direction of the applied forces. The model is color-coded to show stress distribution.	Stepped Shaft
	A stepped shaft in axial tension	
2.	 A 3D finite element model of a non-slender cantilever beam. The beam is fixed at one end and has a point load applied at the free end. The model is color-coded to show stress distribution.	Timoshenko Beam
	A non-slender cantilever beam under point tip loading	
3.	 A 2D cross-section diagram of a thick-walled pressure vessel. The diagram shows the internal pressure distribution and the resulting hoop and axial stresses. The vessel has a thick wall and a central bore.	Pressure Vessel
	Hoop and axial stresses in thick-walled pressure vessels	
4.	 A 3D finite element model of a T-beam undergoing a four-point bend test. The beam is supported at two points and has two point loads applied at the top. The model is color-coded to show stress distribution.	T-Beam
	A four-point bend test on a T-beam	
5.	 A 2D cross-section diagram of a beam. The diagram shows the beam's cross-section and the resulting stress distribution. The beam is color-coded to show stress distribution.	2D Beam
	Planar approximations for a two-dimensional beam analysis	
6.	 A 3D finite element model of a signpost. The signpost is fixed at the base and has a sign attached to the top. The model is color-coded to show stress distribution.	3D Signpost
	Three-dimensional analysis of combined loading in a signpost	