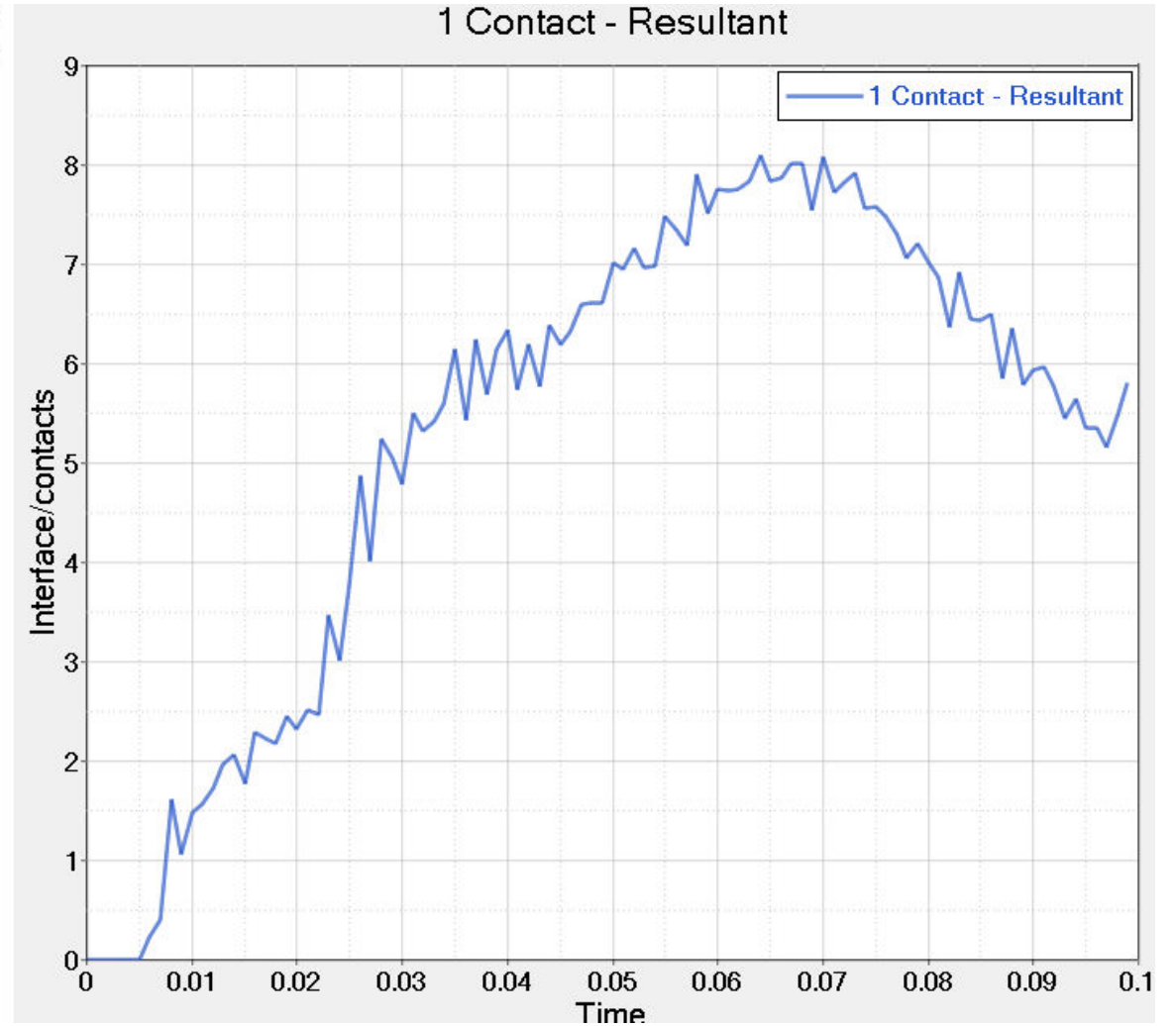
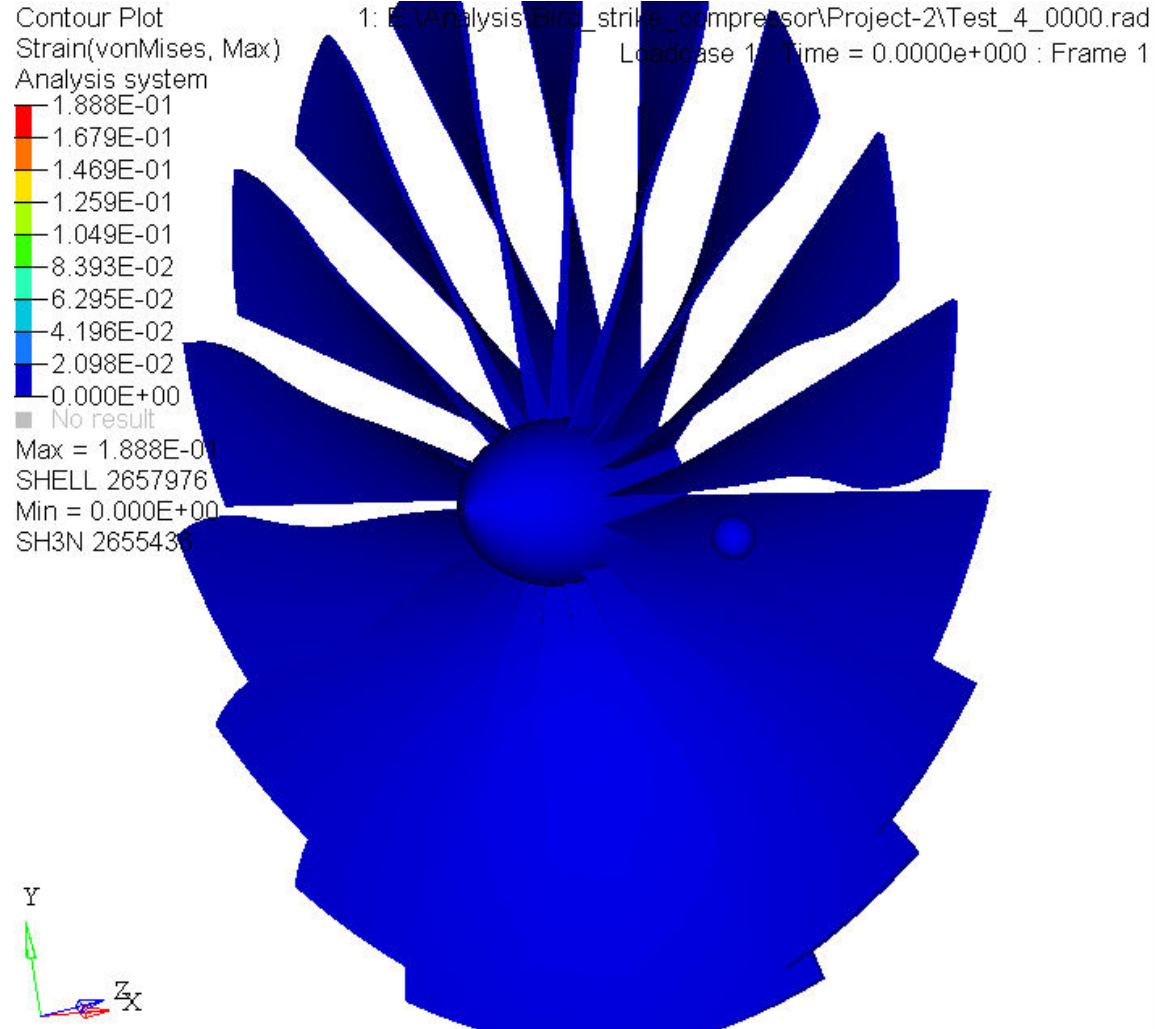


# Computational Mechanics Explicit Non Linear

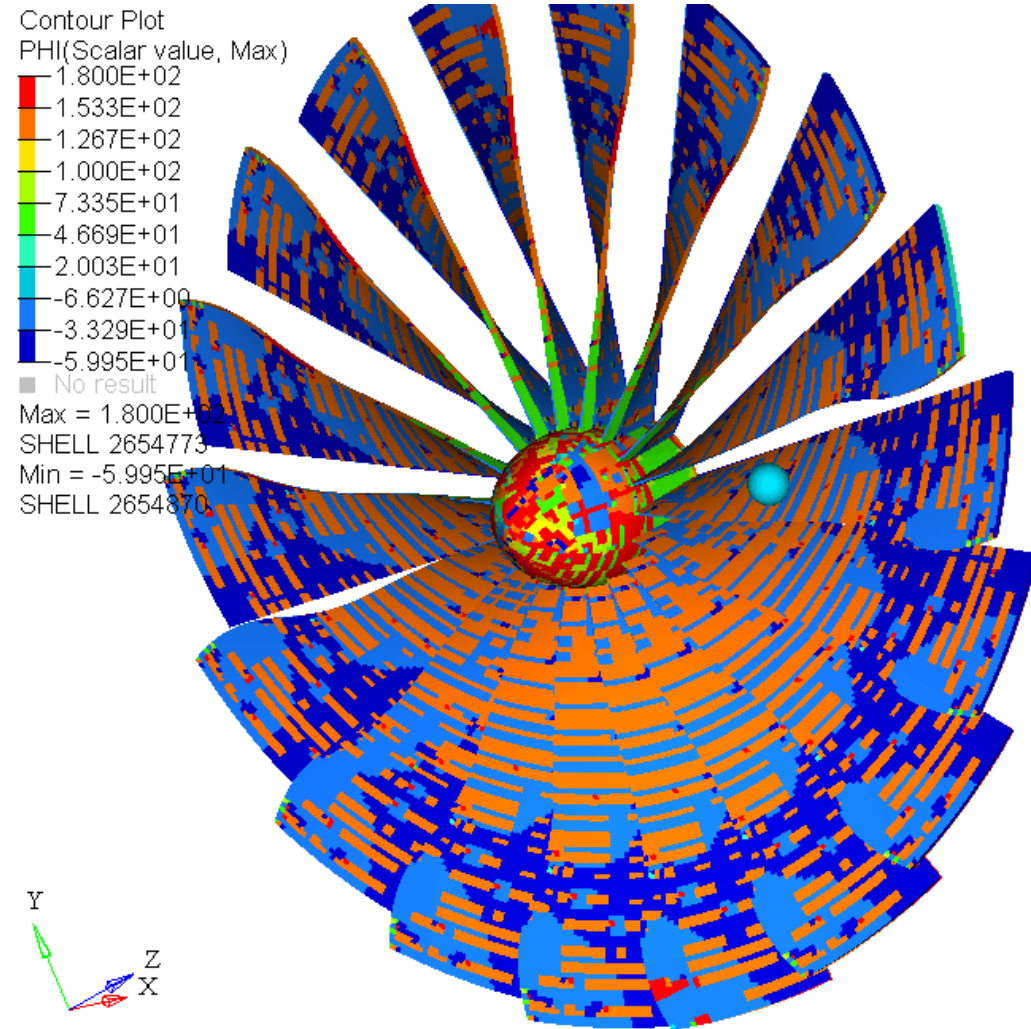
**By**  
**Ashique Ellahi**

Press F5 and scroll down to see animations in PPT

# Ballistic Impact on Composite Gas Turbine Blade

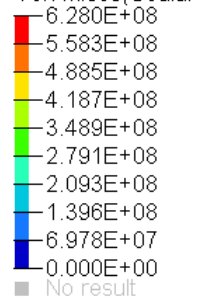


## Composite Ply Stack visualization

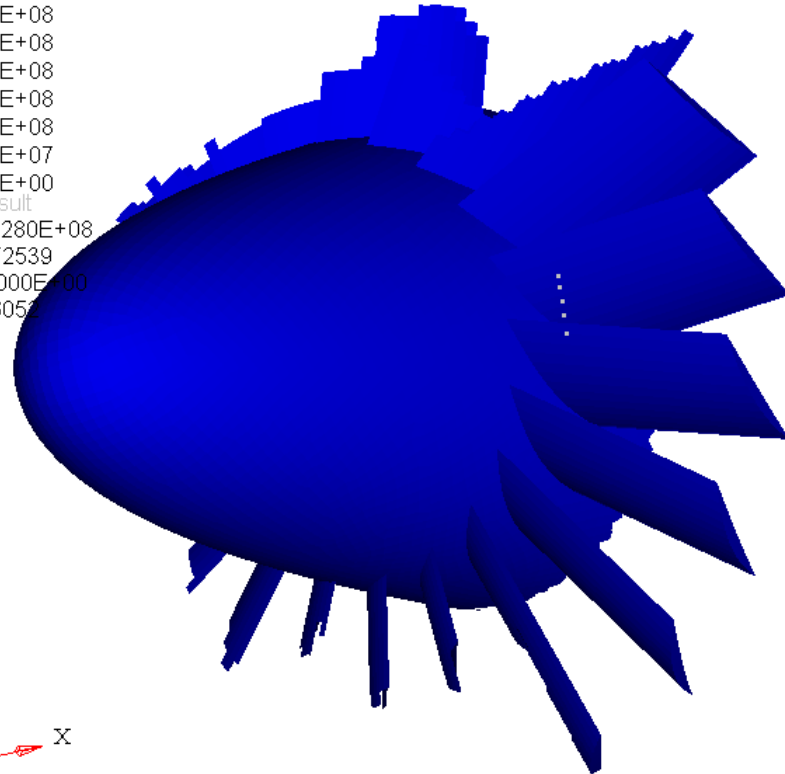


# Smooth Particle Hydrodynamics Bird Impact on gas turbine

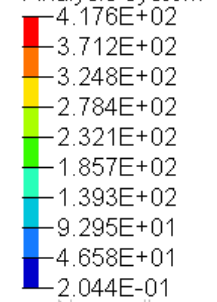
Contour Plot  
Von Mises(Scalar value, Mid)



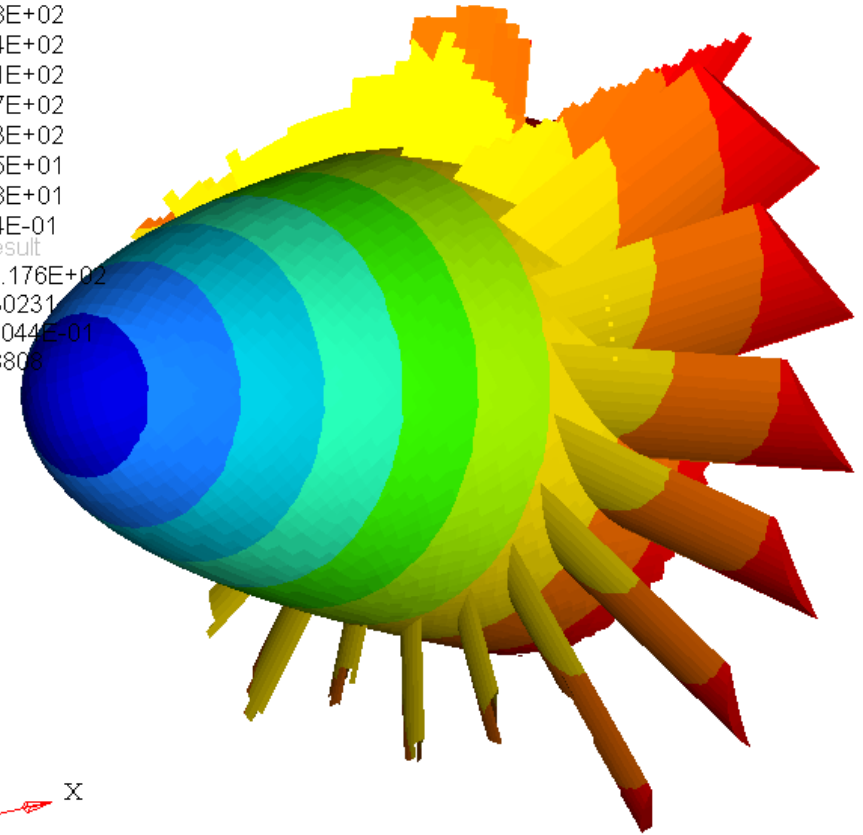
Max = 6.280E+08  
SHELL 72539  
Min = 0.000E+00  
SH3N 3605



Contour Plot  
Displacement(Mag)

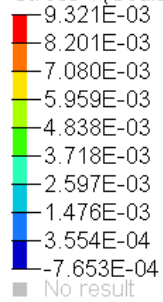


Max = 4.176E+02  
Node 130231  
Min = 2.044E-01  
Node 88808



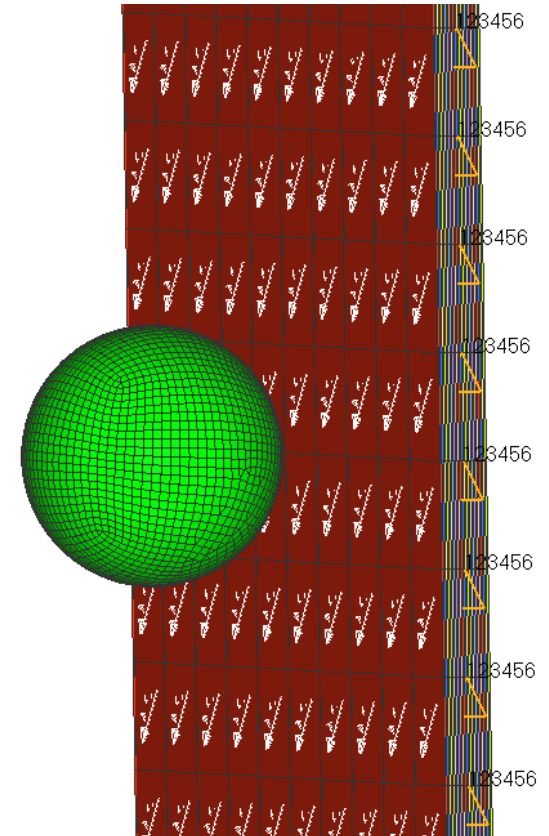
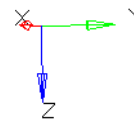
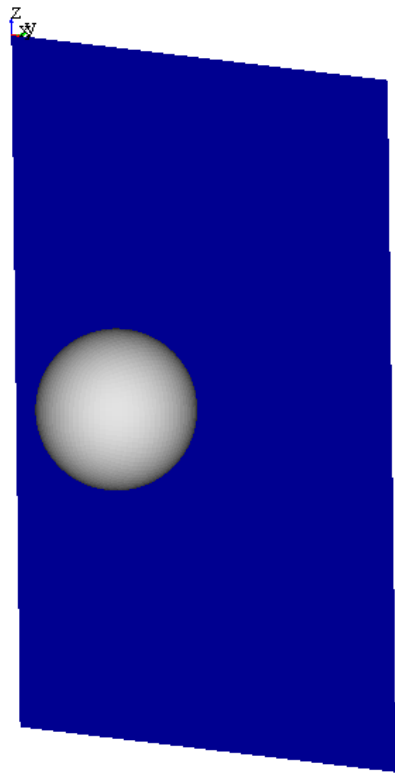
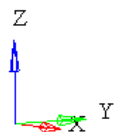
# Ballistic Impact on Laminated Composite Plate

Contour Plot  
Stress Y(Scalar value, Mid)



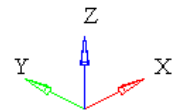
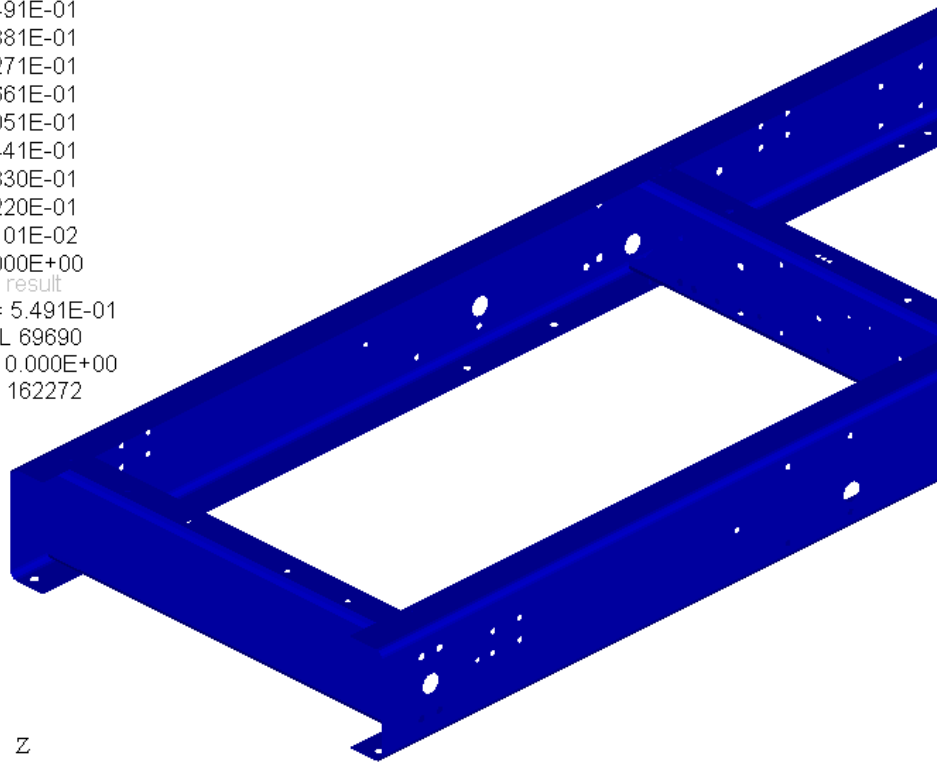
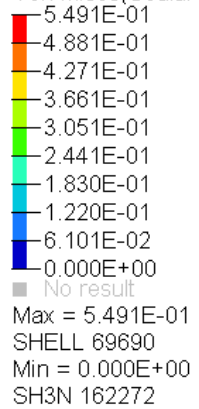
Max = 9.321E-03  
SHELL 34  
Min = -7.653E-04  
SHELL 58

1: E:\Analysis\Ballistic\_Impact\_Composite\test7\_0000.rad  
Loadcase 1 : Time = 0.0000e+000 : Frame 1

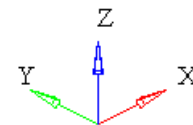
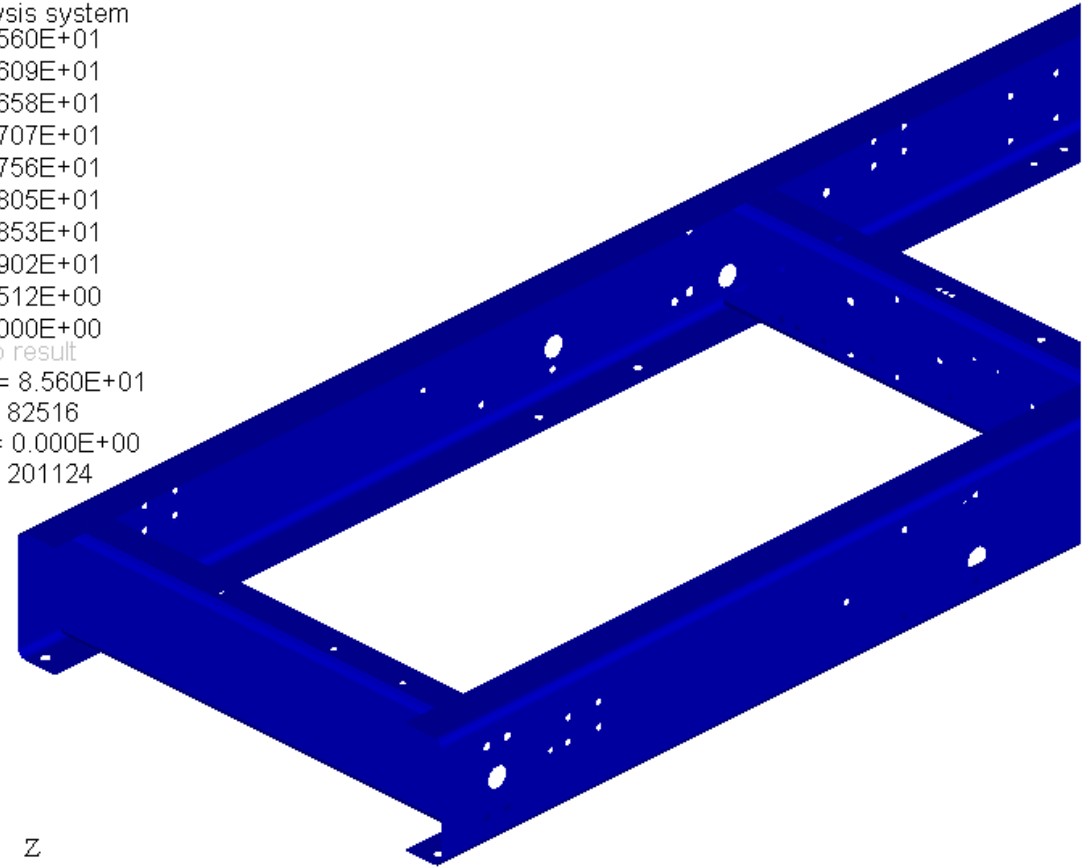
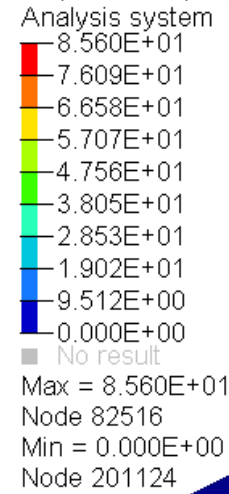


# Buckling of Structure

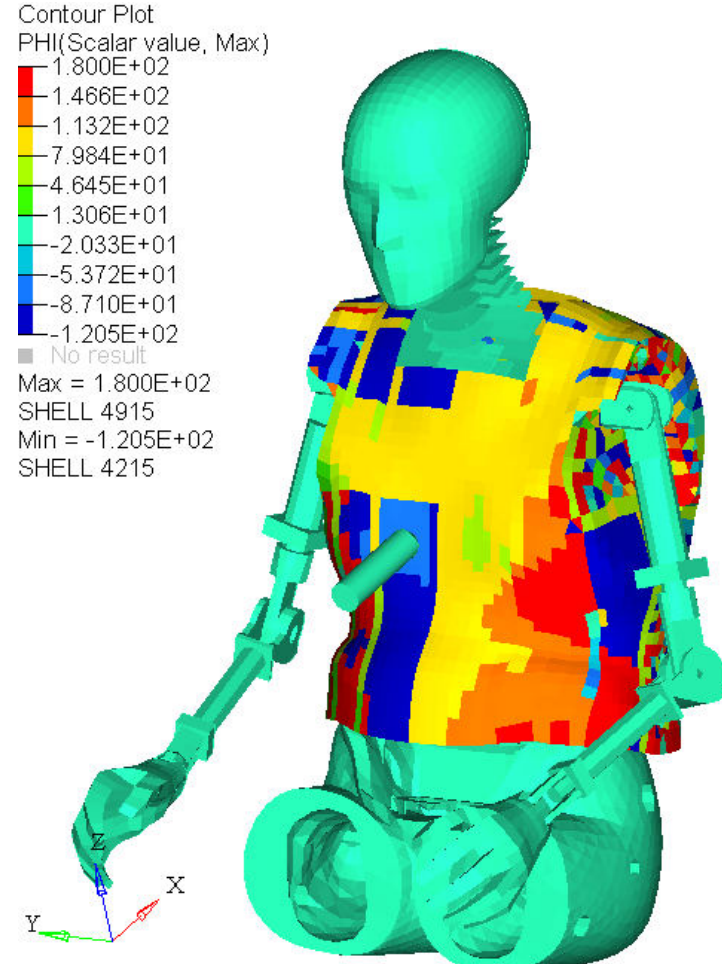
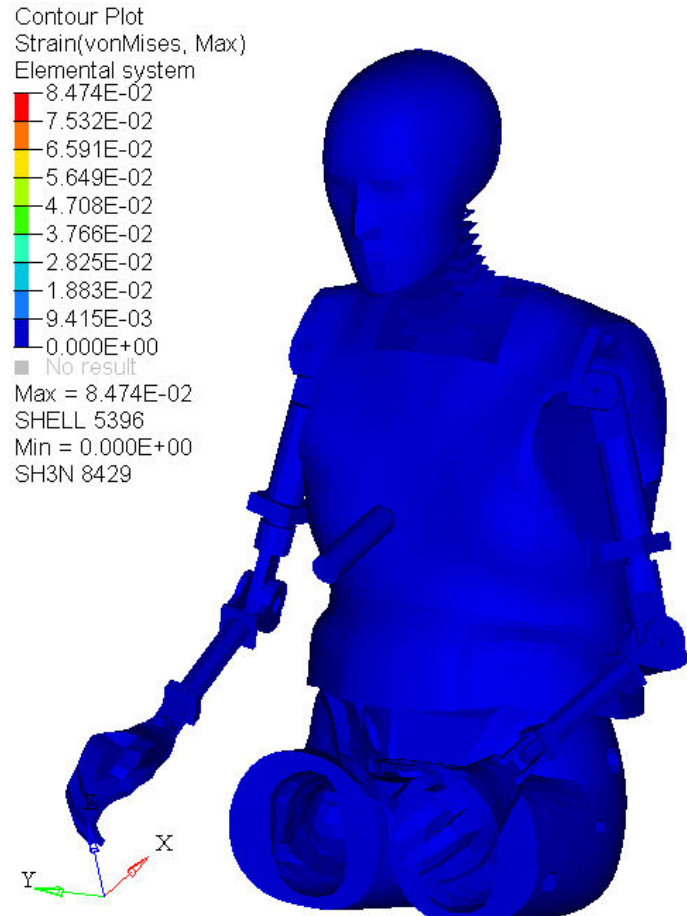
Conti Eni Pro...  
Crash\_Analysis\_Project\_13.0\Crash\_project\_Files\Radioss\_Files\Crash\_A...  
Von Mises(Scalar value, Mid) Loadcase 1 : Time = 0.0000e+000 : Frame 1



Conti Eni Pro...  
Crash\_Analysis\_Project\_13.0\Crash\_project\_Files\Radioss\_Files\Crash\_A...  
Displacement(Mag) Loadcase 1 : Time = 0.0000e+000 : Frame 1



# Impact on Composite Fabric



**Thank You**