East West University

Project Report

Course Code: EEE 305

Course Name: Electromagnetic Fields and Wave

Submitted to:

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Assistant Professor

Dept. of Electrical and Electronic Engineering

East West University

Submitted by:

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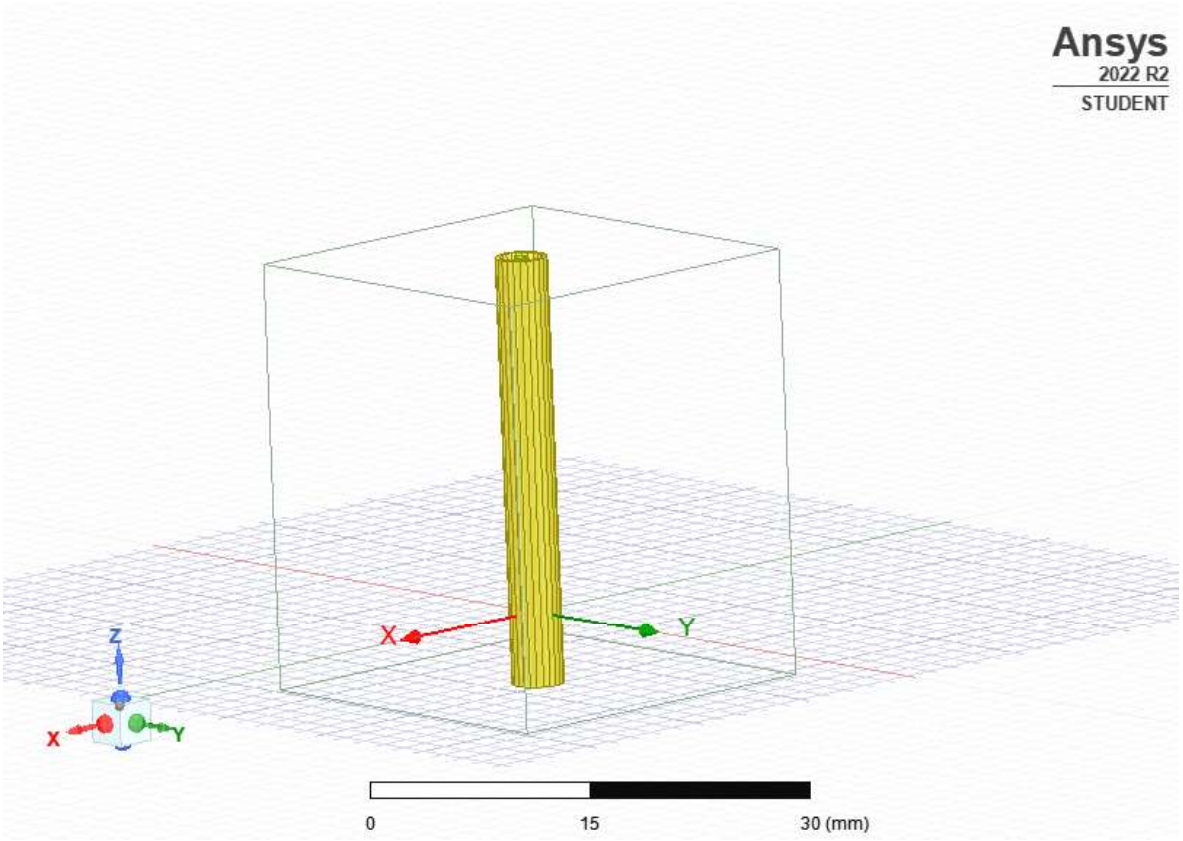
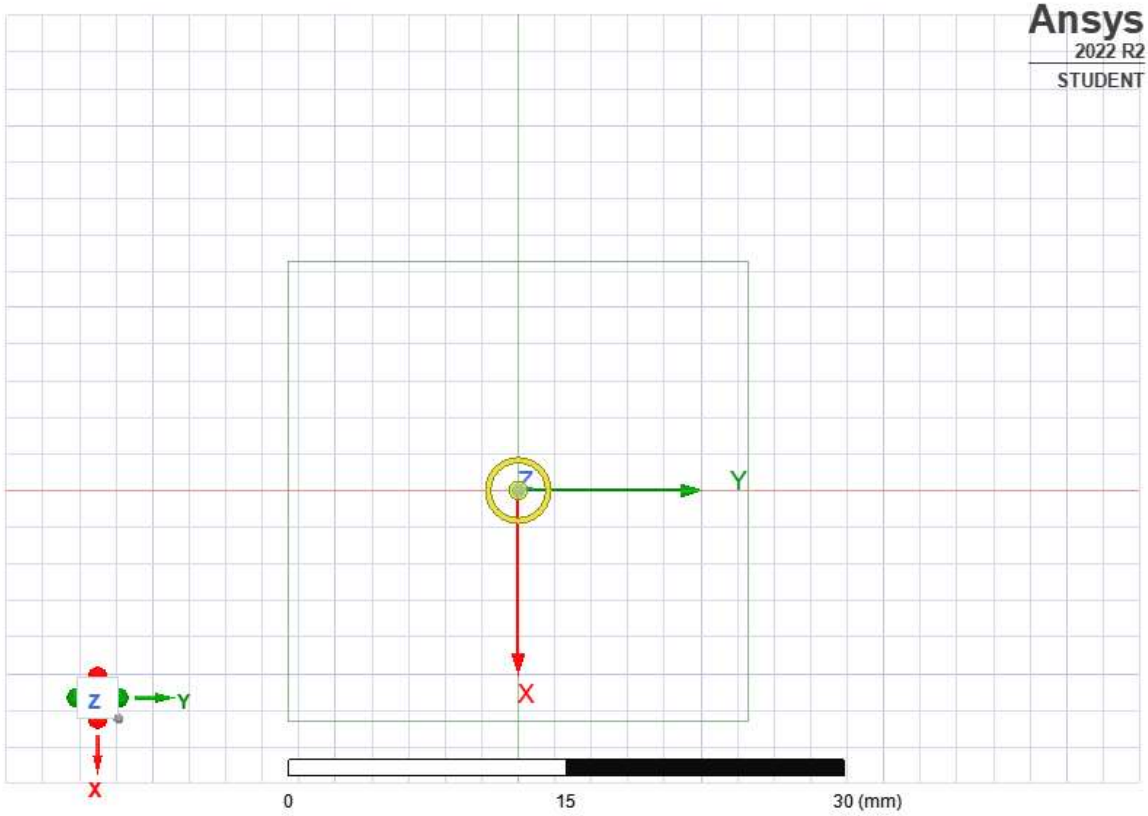
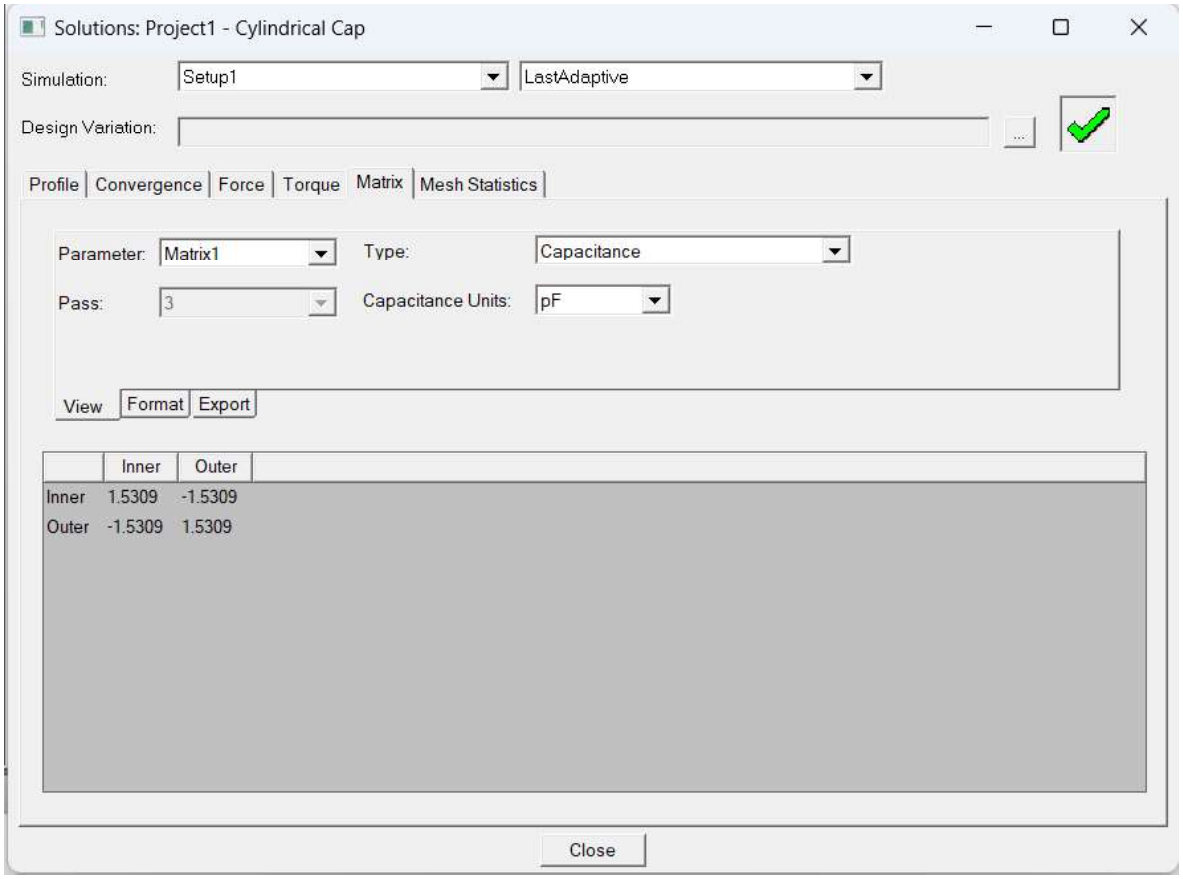
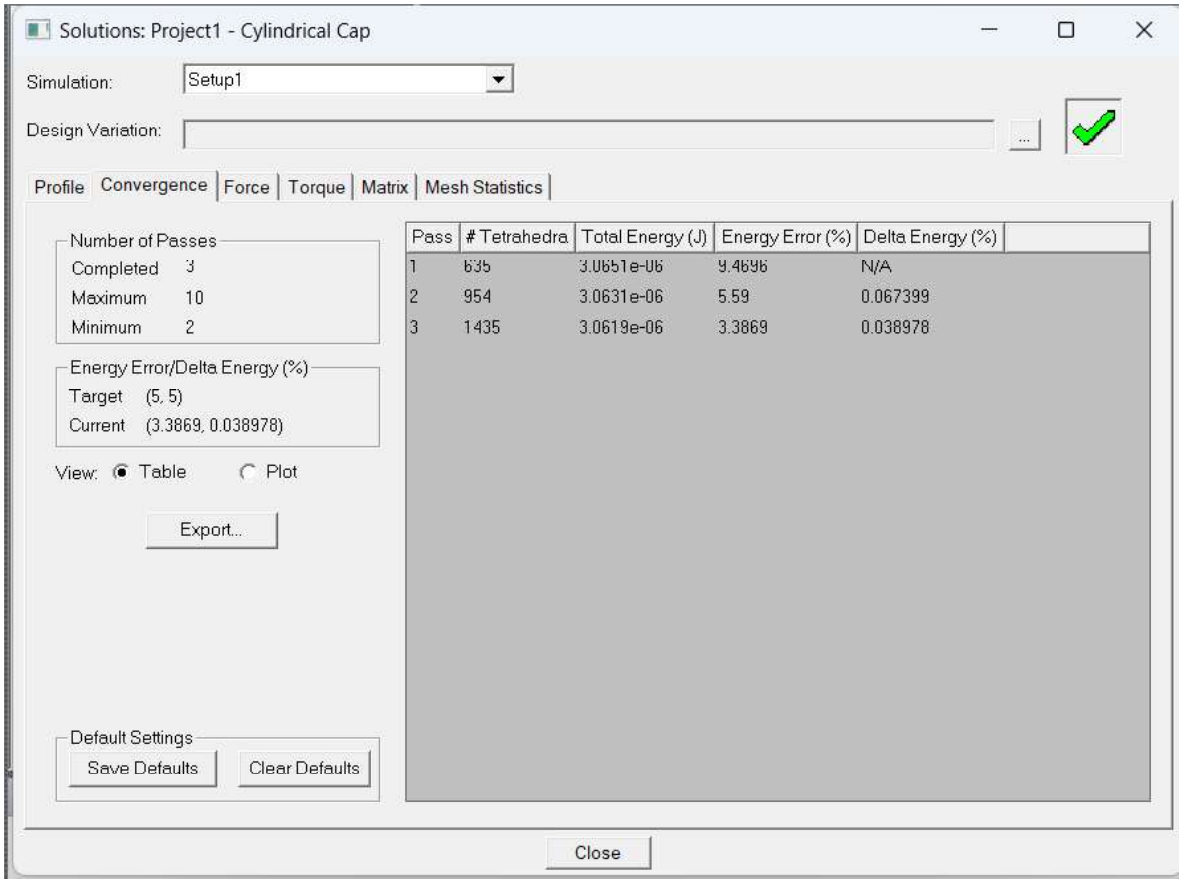
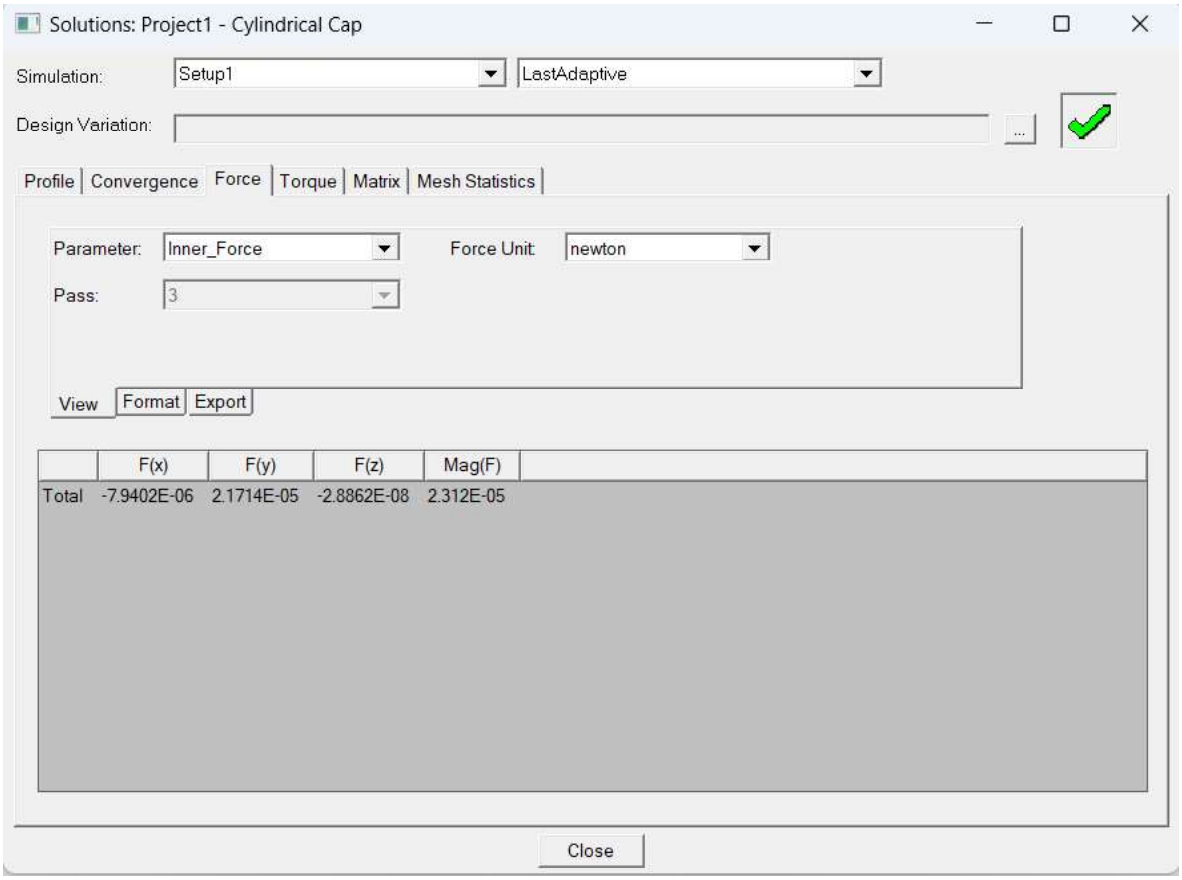
Date of Submission: 23-12-2022

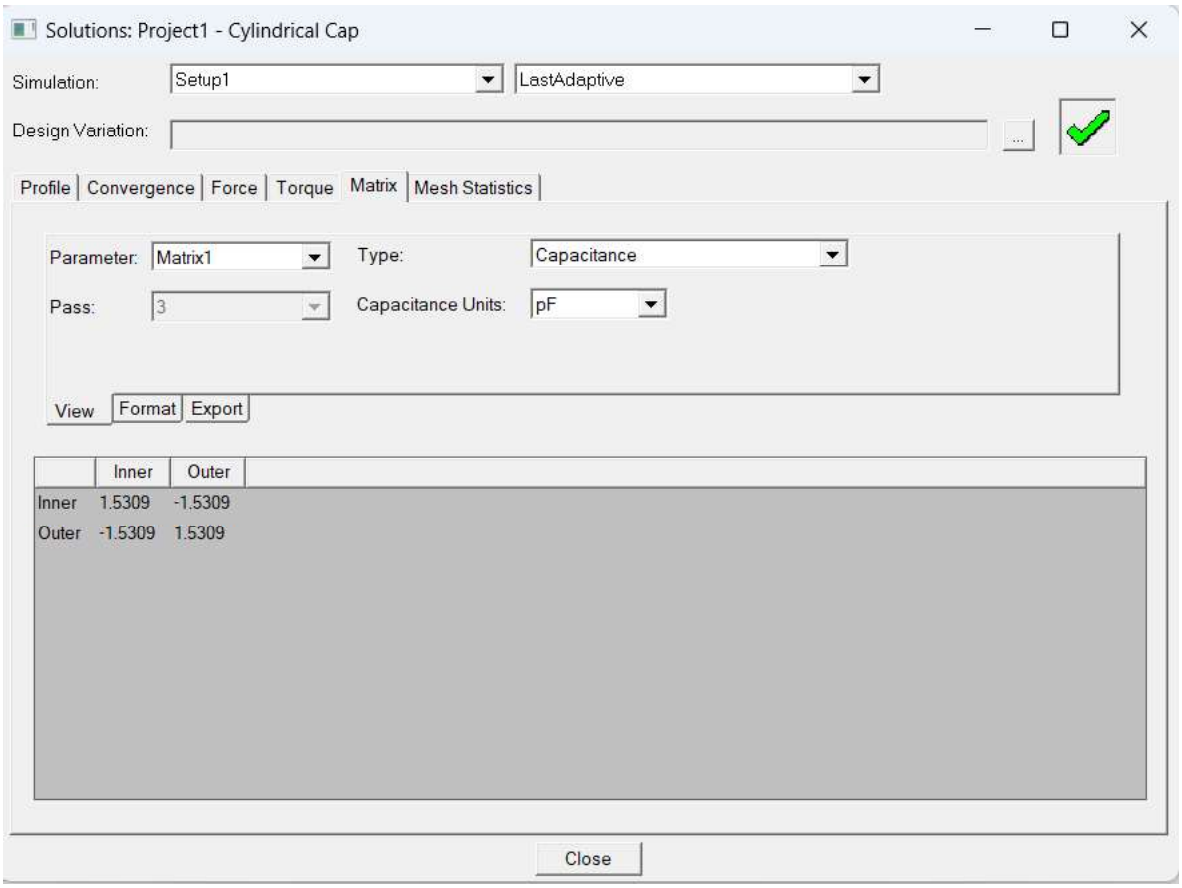

Ansys
2022 R2
STUDENT
Z
X
Y
X
Y
0
15
30 (mm)

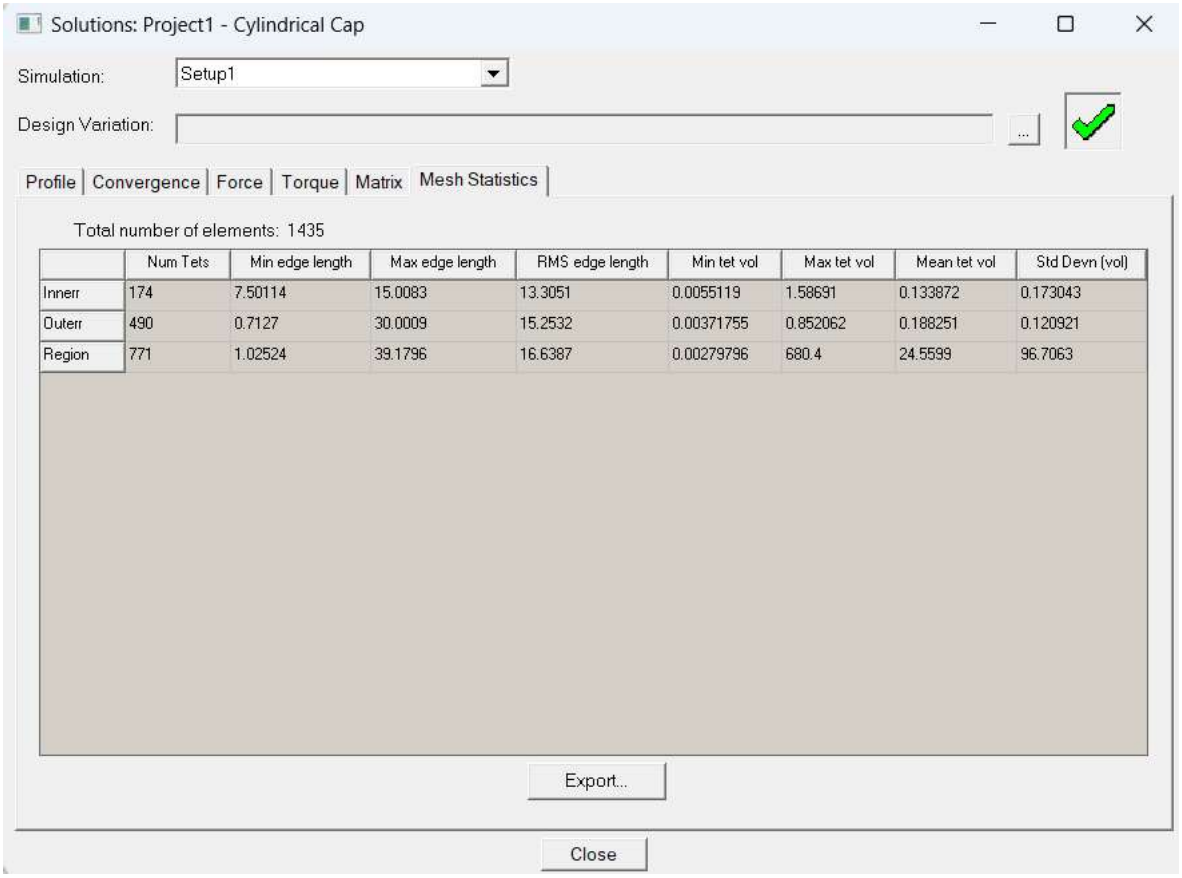

Ansys
2022 R2
STUDENT
Z
Y
X
Z
Y
X
0
15
30 (mm)


Solutions: Project1 - Cylindrical Cap
Simulation:
Setup1
LastAdaptive
Design Variation:
Profile
Convergence
Force
Torque
Matrix
Mesh Statistics
Parameter:
Matrix1
Type:
Capacitance
Pass:
3
Capacitance Units:
pF
View
Format
Export
Inner
Outer
Inner 1.5309 -1.5309
Outer -1.5309 1.5309
Close


Solutions: Project1 - Cylindrical Cap
Simulation:
Setup1
Design Variation:
Profile
Convergence
Force
Torque
Matrix
Mesh Statistics
Number of Passes
Completed 3
Maximum 10
Minimum 2
Energy Error/Delta Energy (%)
Target (5, 5)
Current (3.3869, 0.038978)
View: Table Plot
Export...
Default Settings
Save Defaults
Clear Defaults
Pass
Tetrahedra
Total Energy (J)
Energy Error (%)
Delta Energy (%)
1 635 3.0651e-06 9.4696 N/A
2 954 3.0631e-06 5.59 0.067399
3 1435 3.0619e-06 3.3869 0.038978
Close


Solutions: Project1 - Cylindrical Cap
Simulation:
Setup1
LastAdaptive
Design Variation:
Profile
Convergence
Force
Torque
Matrix
Mesh Statistics
Parameter:
Inner_Force
Force Unit:
newton
Pass:
3
View
Format
Export
F(x)
F(y)
F(z)
Mag(F)
Total
-7.9402E-06
2.1714E-05
-2.8862E-08
2.312E-05
Close


Solutions: Project1 - Cylindrical Cap
Simulation:
Setup1
LastAdaptive
Design Variation:
Profile
Convergence
Force
Torque
Matrix
Mesh Statistics
Parameter:
Matrix1
Type:
Capacitance
Pass:
3
Capacitance Units:
pF
View
Format
Export
Inner
Outer
Inner
1.5309
-1.5309
Outer
-1.5309
1.5309
Close


Solutions: Project1 - Cylindrical Cap
Simulation:
Setup1
Design Variation:
...
Profile
Convergence
Force
Torque
Matrix
Mesh Statistics
Total number of elements: 1435
Num Tets
Min edge length
Max edge length
RMS edge length
Min tet vol
Max tet vol
Mean tet vol
Std Devn (vol)
Innerr
174
7.50114
15.0083
13.3051
0.0055119
1.58691
0.133872
0.173043
Outerr
490
0.7127
30.0009
15.2532
0.00371755
0.852062
0.188251
0.120921
Region
771
1.02524
39.1796
16.6387
0.00279796
680.4
24.5599
96.7063
Export...
Close