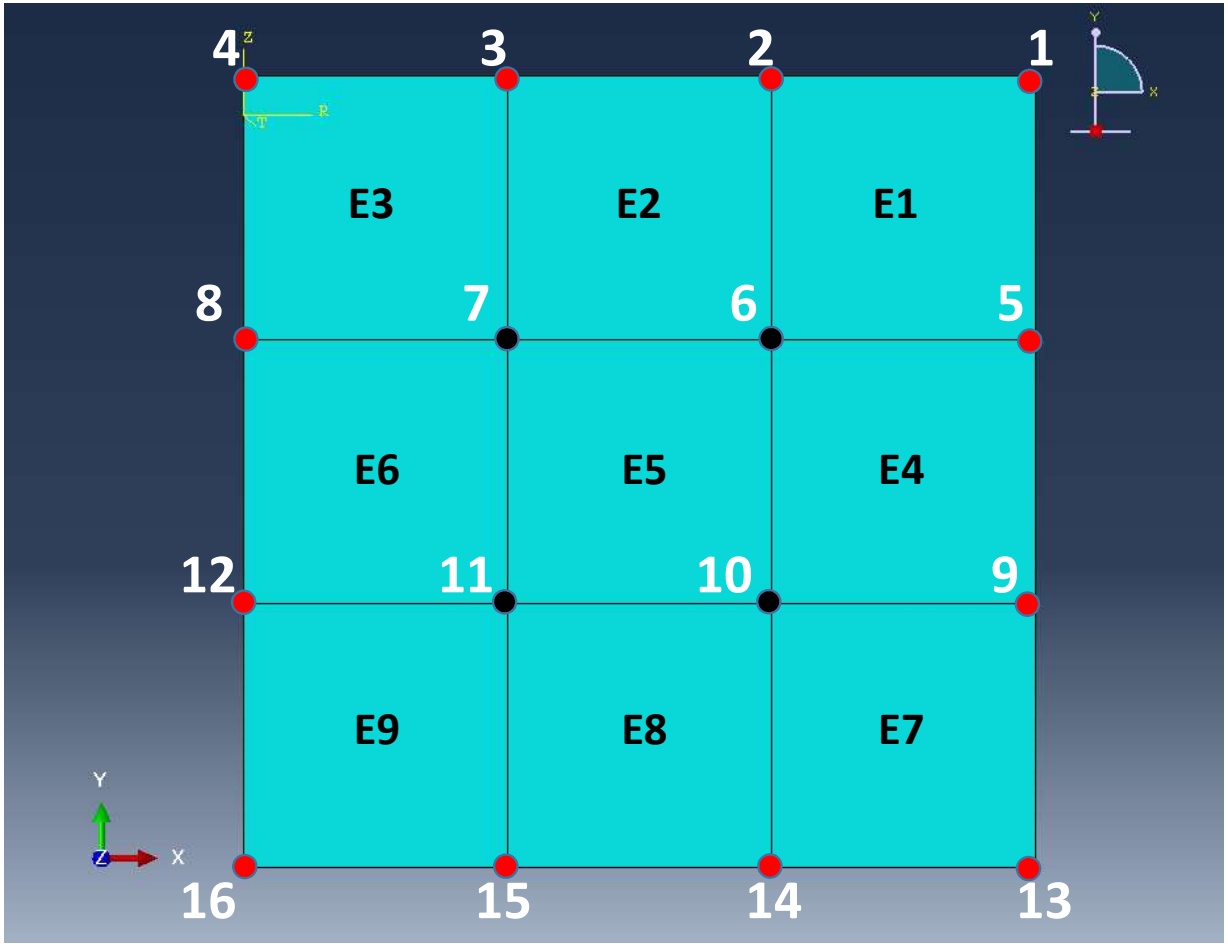
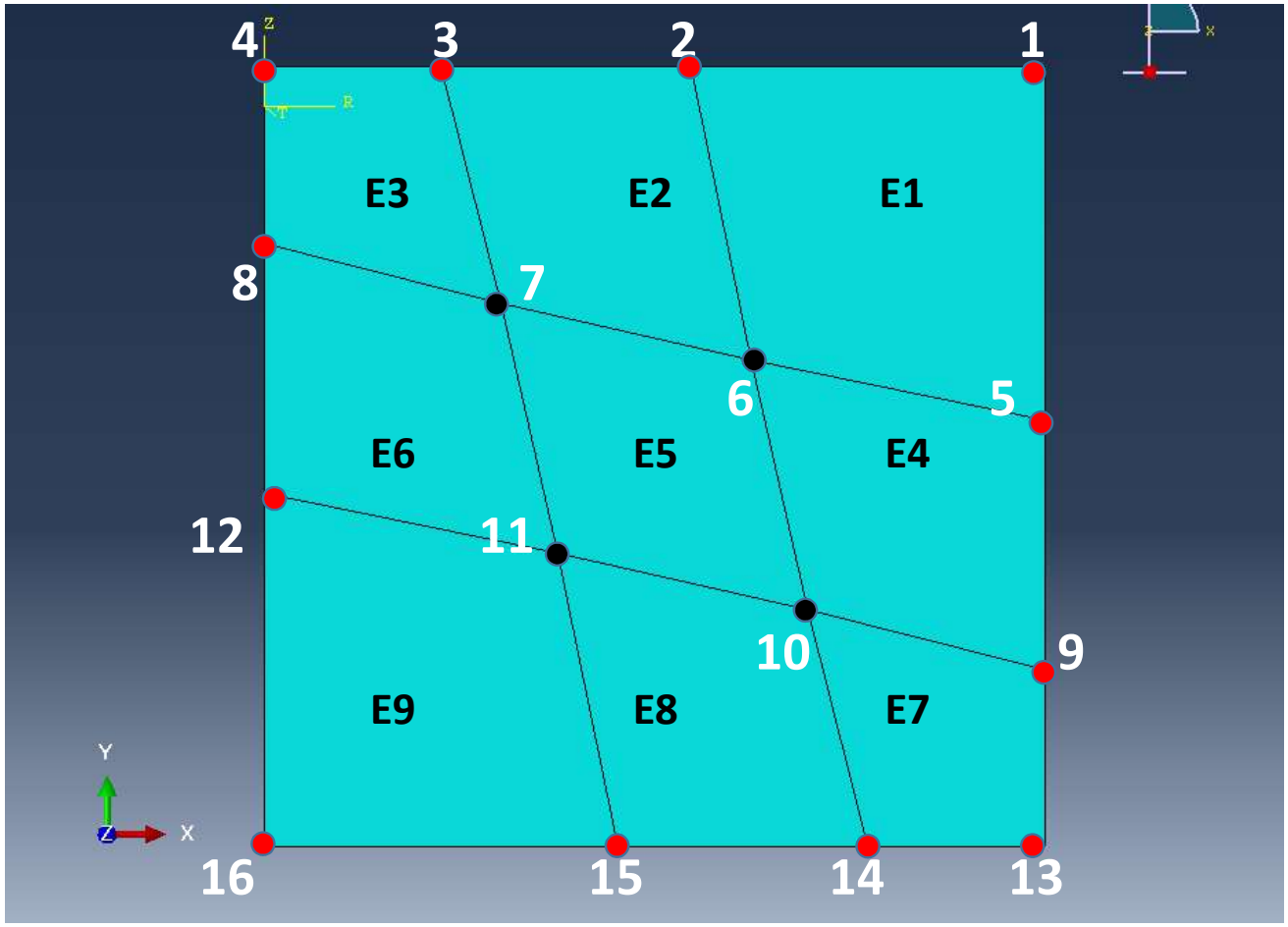
SimulationTime 500
SimulationStepTime 50
Conductivity 25
Alfa 300
Tot 1200
InitialTemp 100
Density 7800
SpecificHeat 700
Nodes number 16
Elements number 9
*Node
1, 0.100000001, 0.00499999989
2, 0.0666666701, 0.00499999989
……..
14, 0.0666666701, -0.0949999988
15, 0.0333333351, -0.0949999988
16, 0., -0.0949999988
*Element, type=DC2D4
1, 1, 2, 6, 5
2, 2, 3, 7, 6
3, 3, 4, 8, 7
4, 5, 6, 10, 9
5, 6, 7, 11, 10
6, 7, 8, 12, 11
7, 9, 10, 14, 13
8, 10, 11, 15, 14
9, 11, 12, 16, 15
*BC
1, 2, 3, 4, 5, 8, 9, 12, 13, 14, 15, 16

Import siatki MES

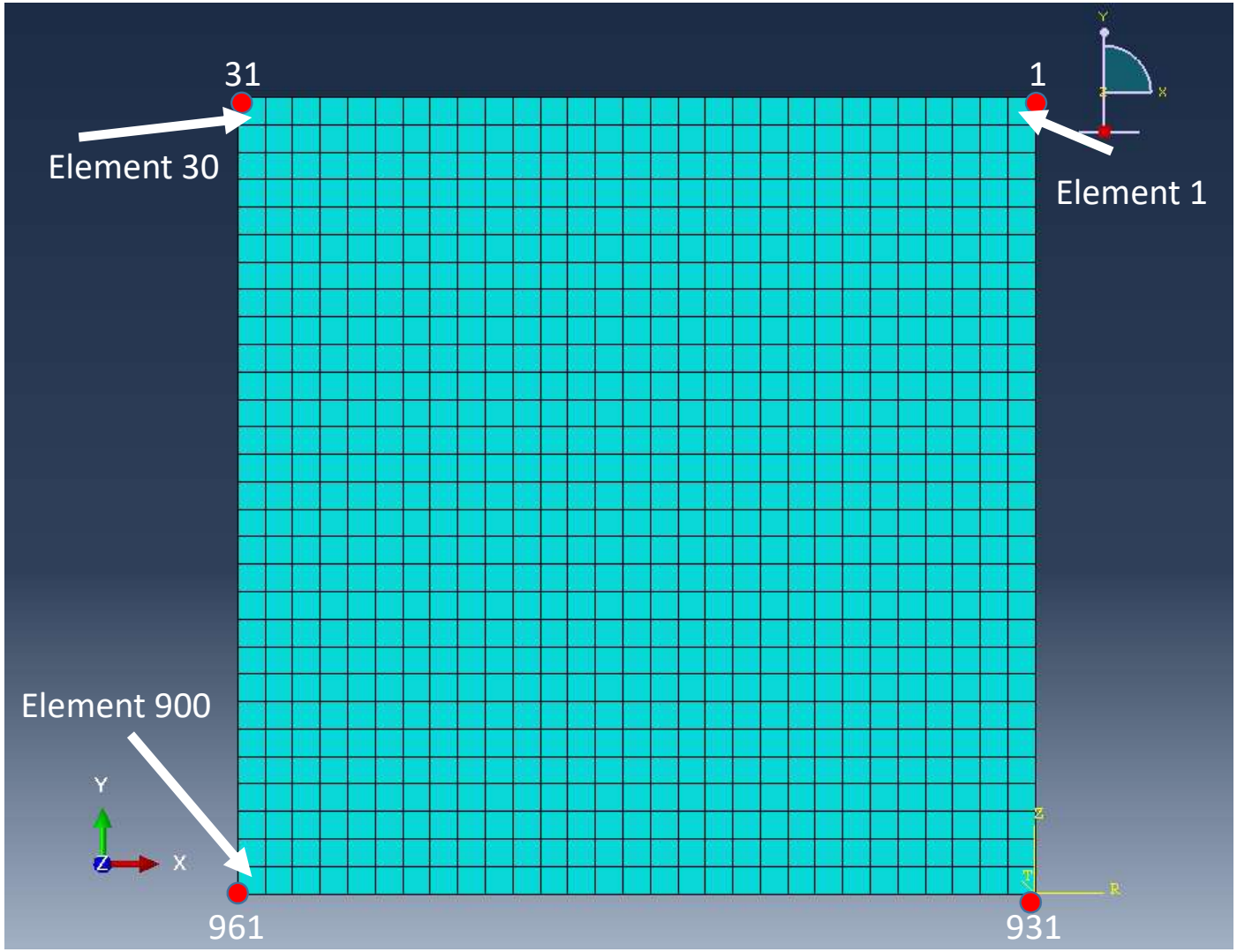


Test 1 siatka kwadratowa 4x4 węzły – Test1_4_4

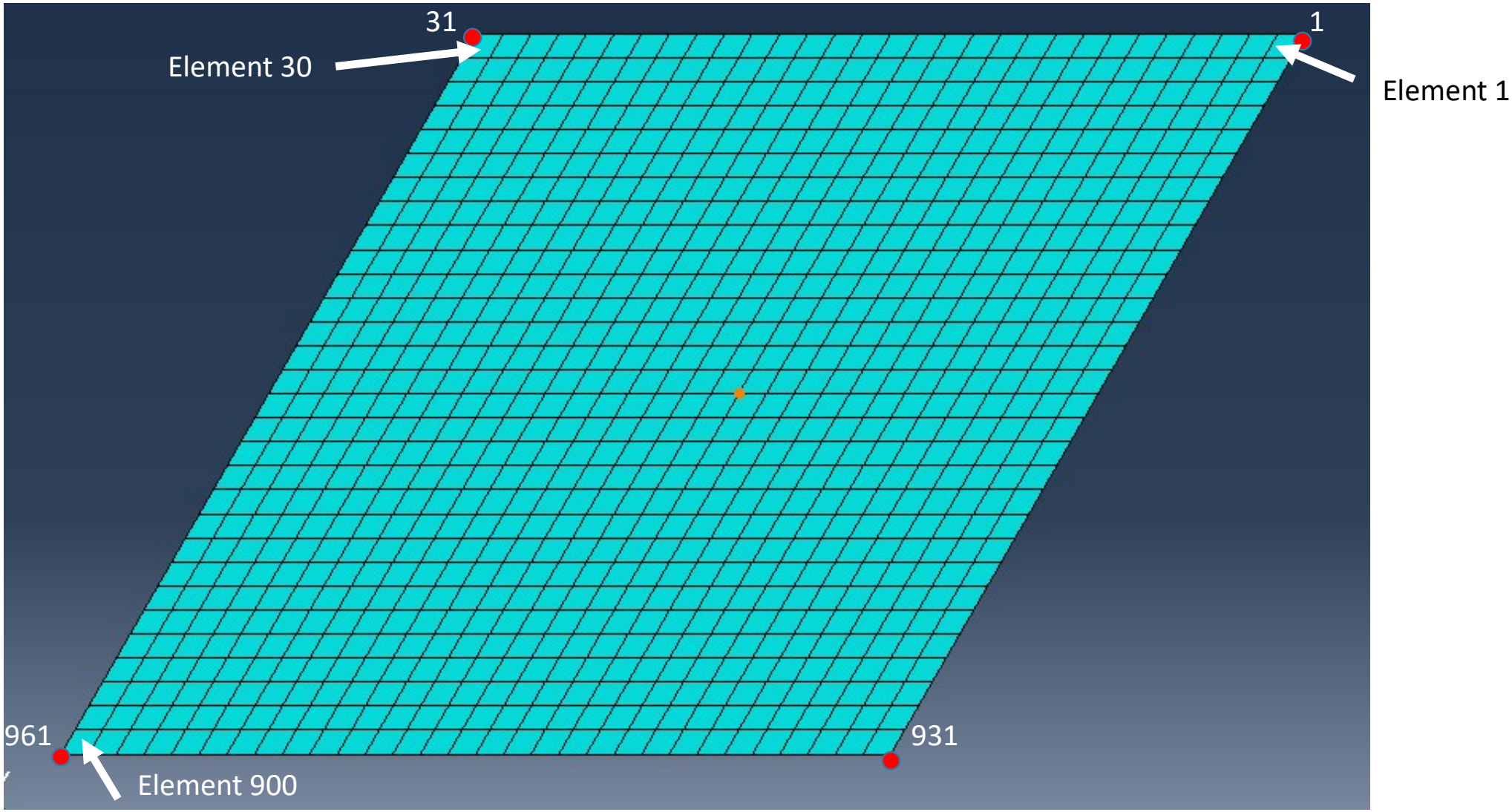
Test 2 siatka kwadratowa 4x4 węzły - Test2_4_4_MixGrid

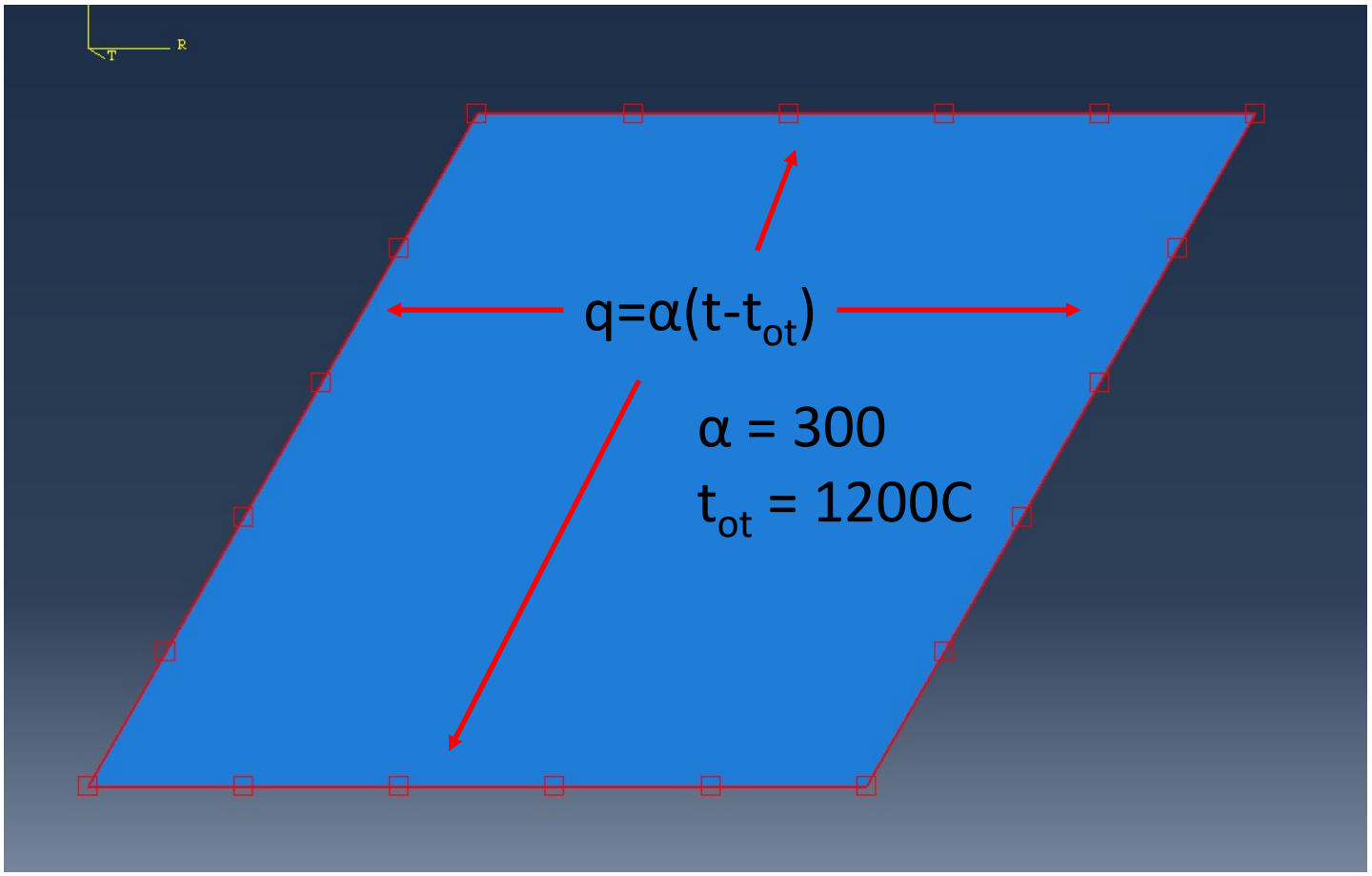


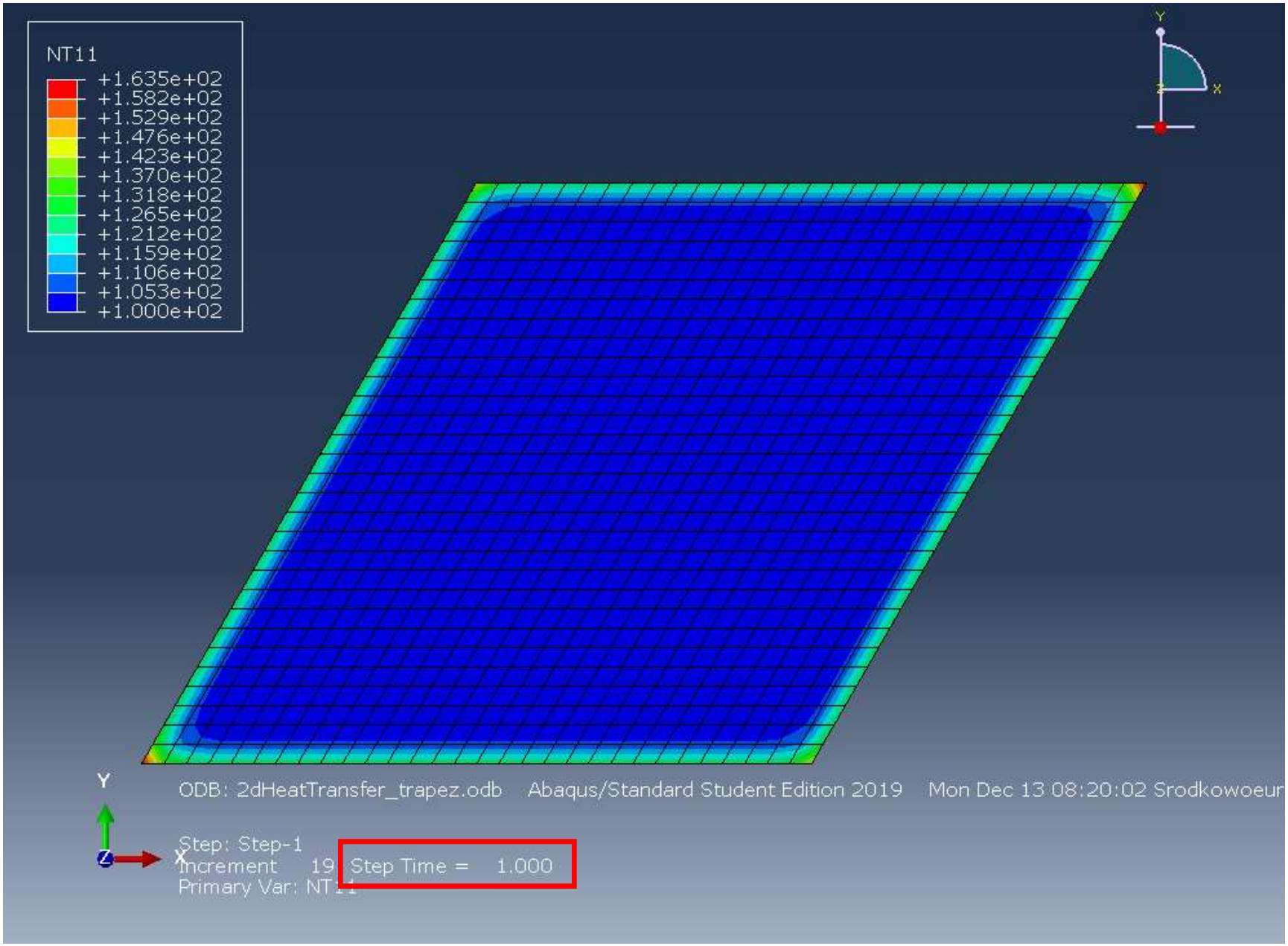
Test 3 siatka kwadratowa 31x31 – Test3_31_31_kwadrat

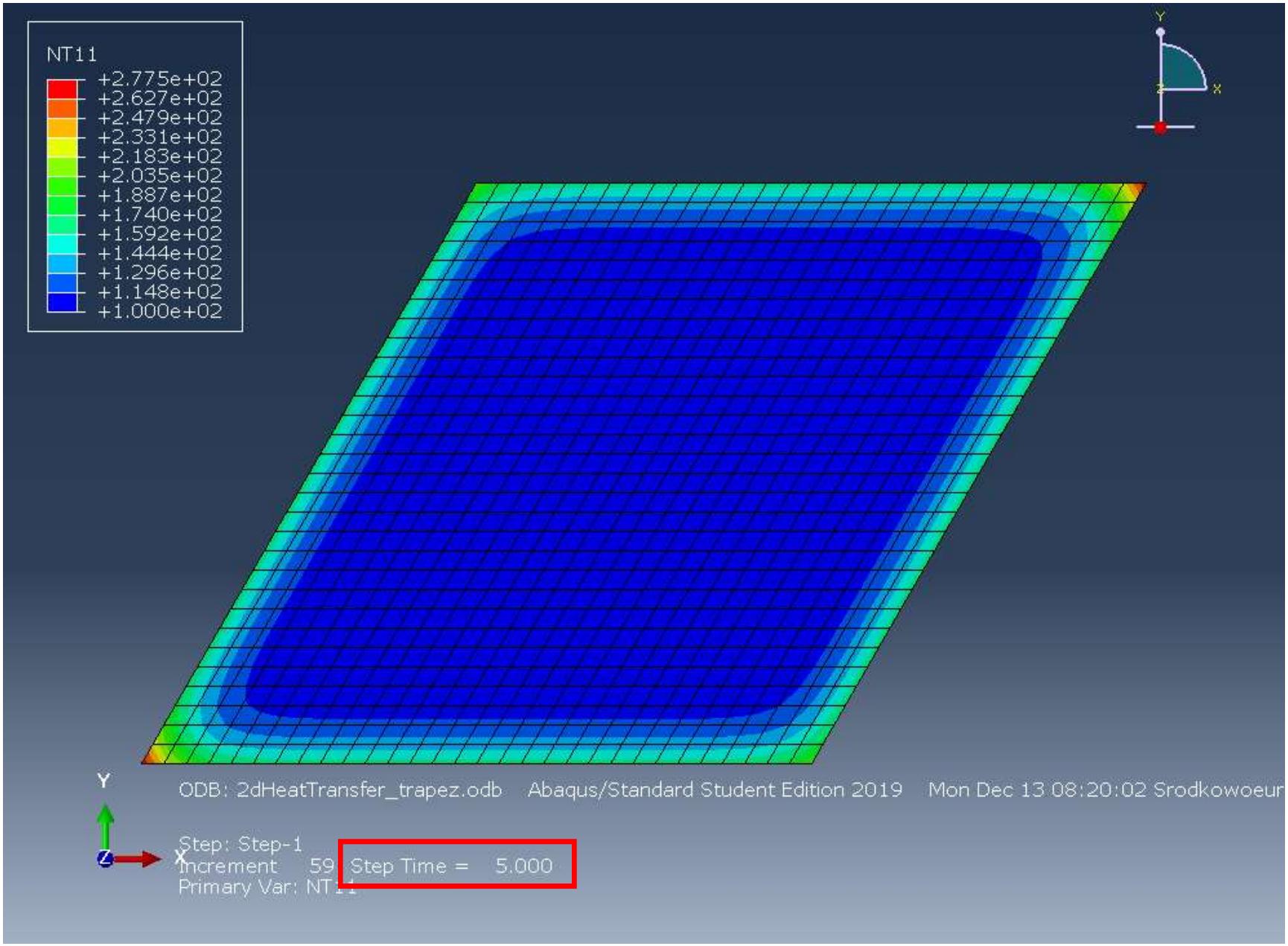


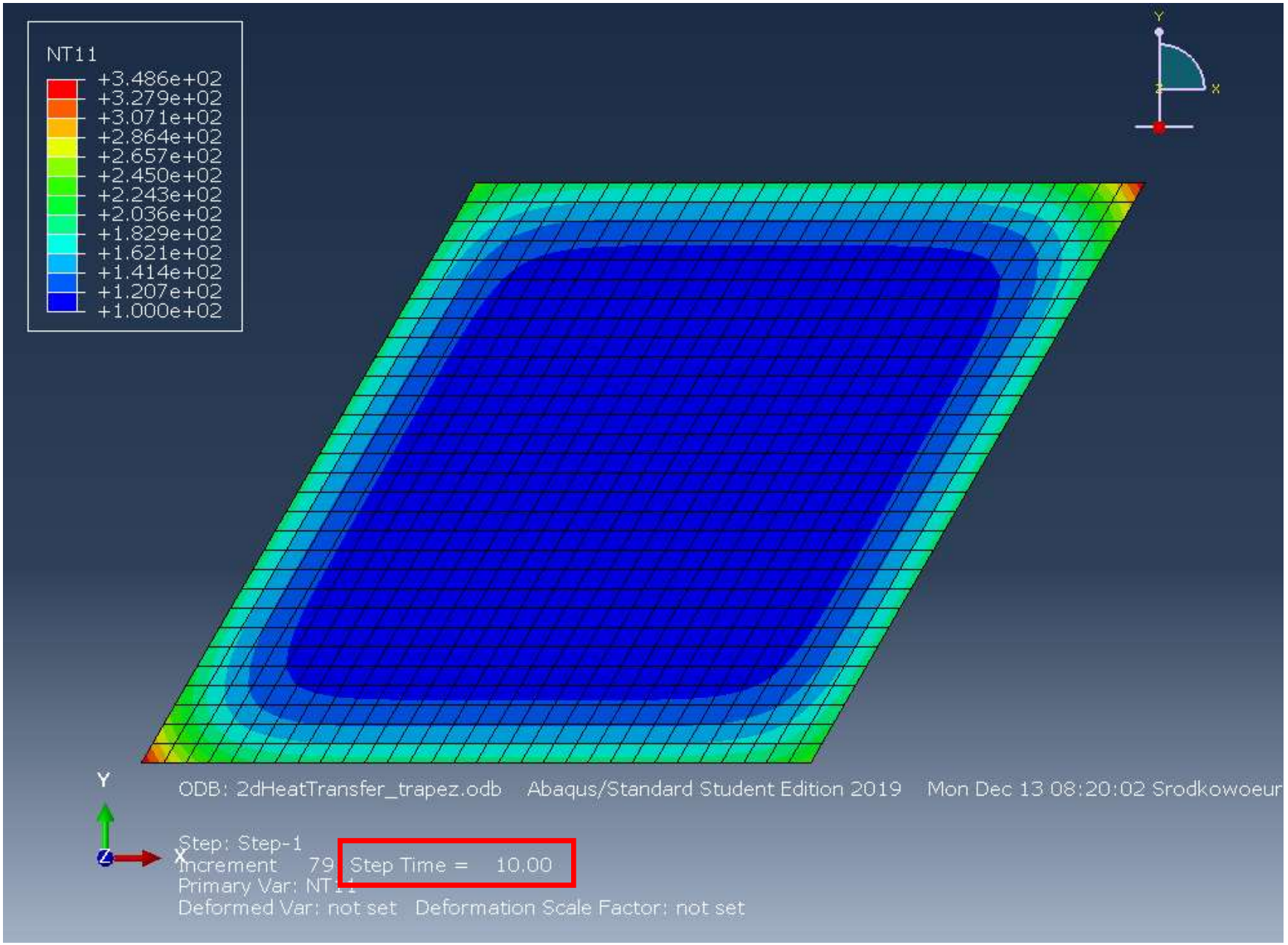
Test 4 siatka kwadratowa 31x31 – Test4_31_31_trapez

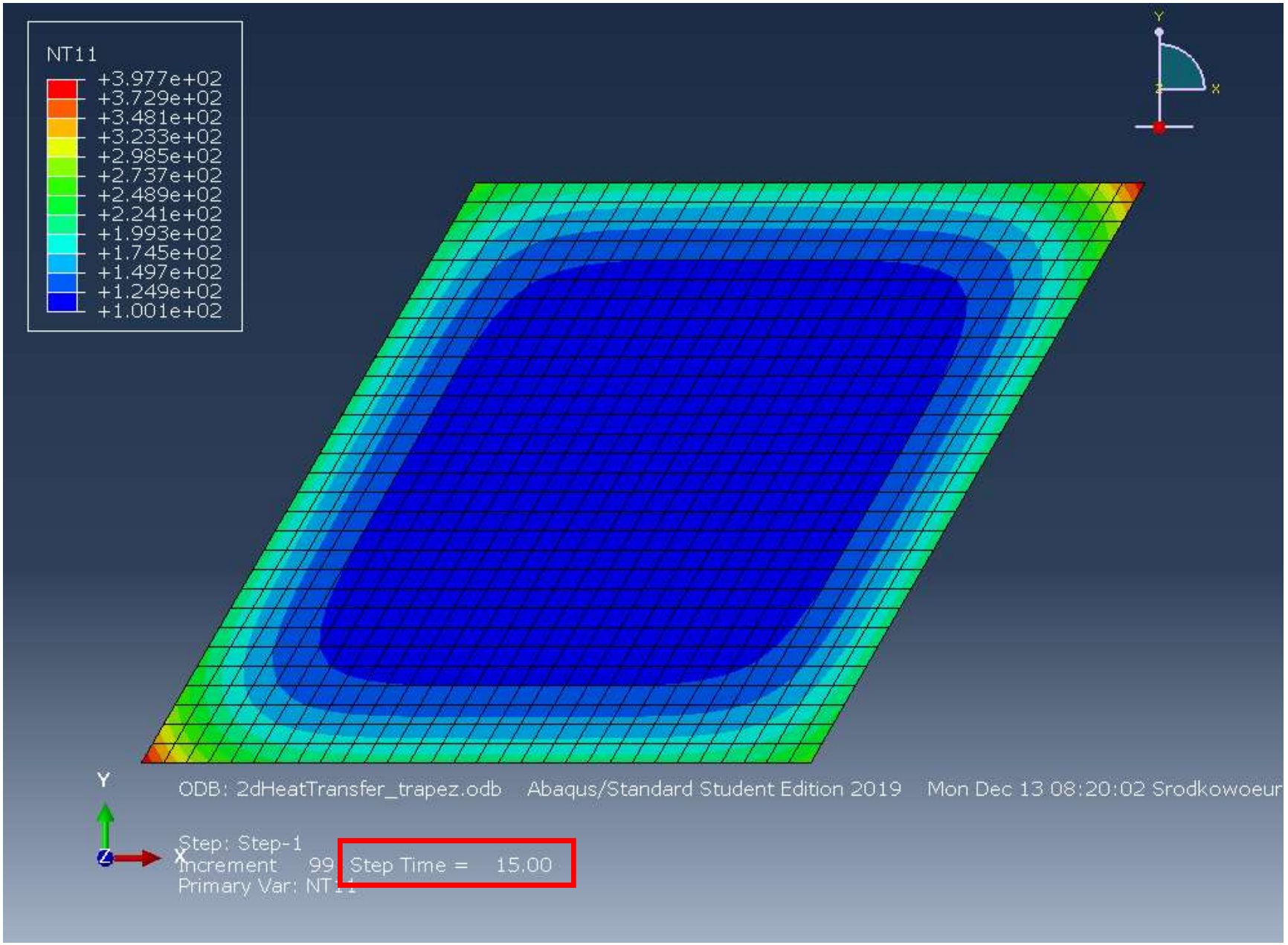


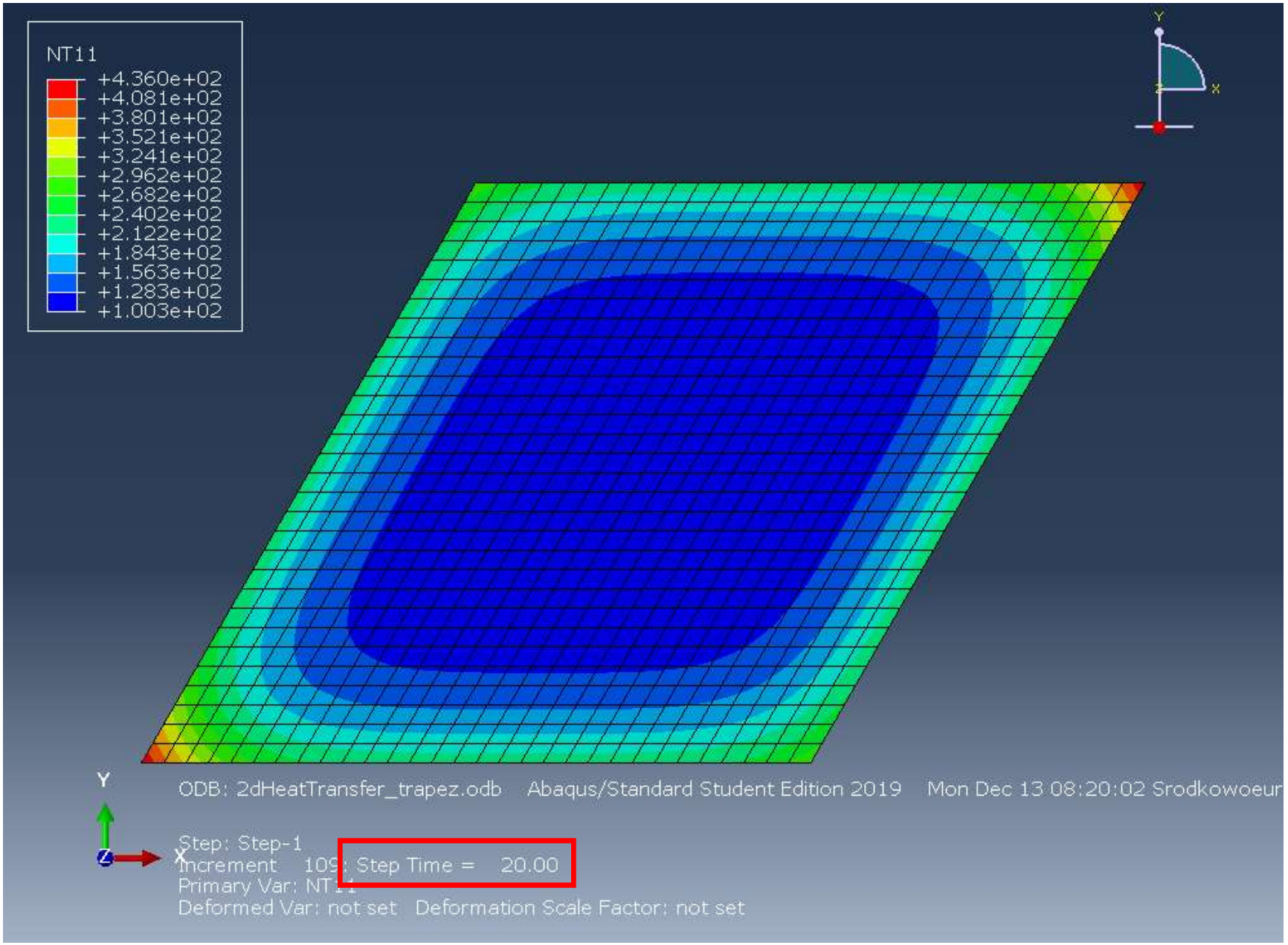

R
T
q=α(t-t_ot)
α = 300
t_ot = 1200C

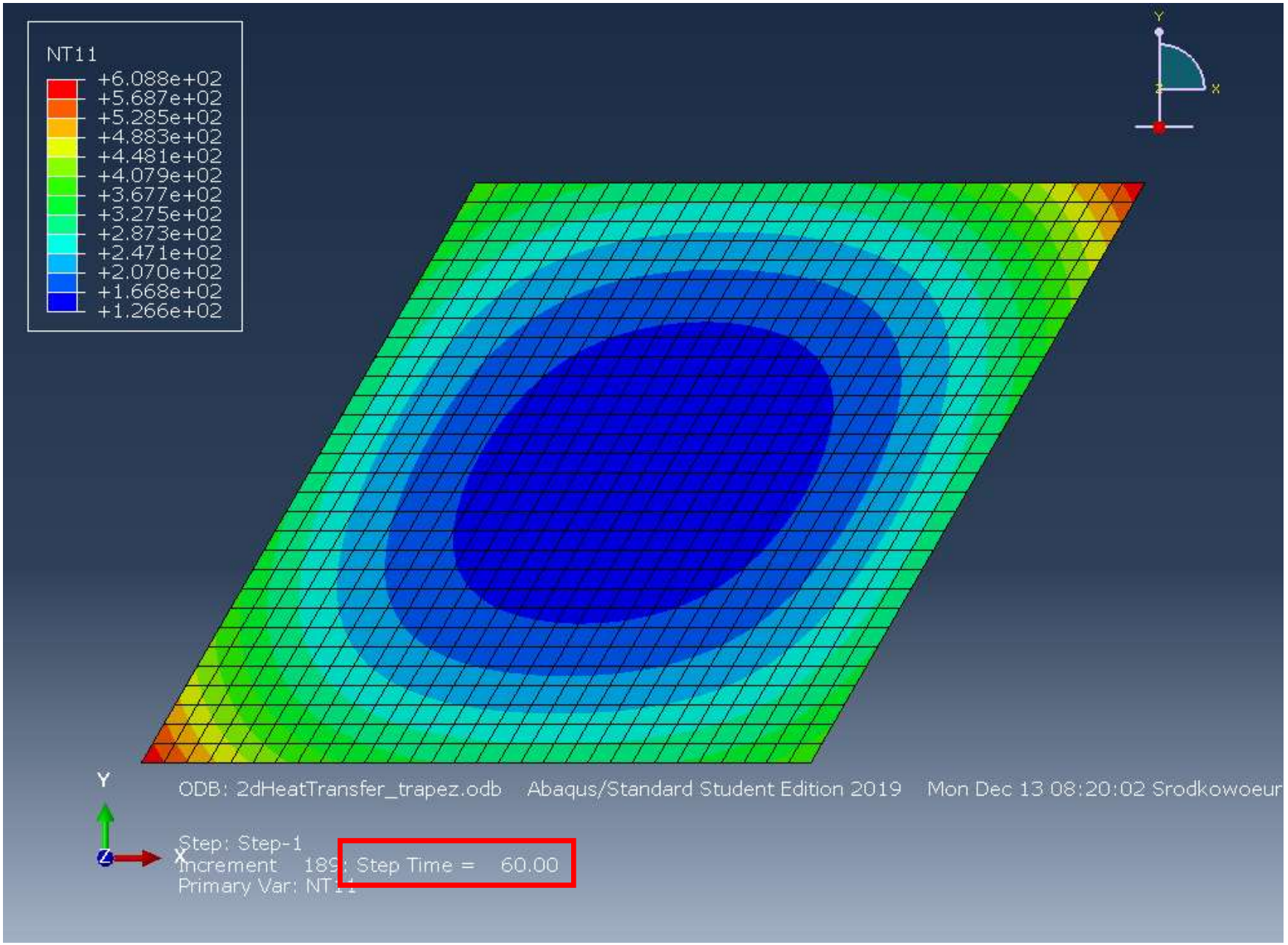

NT11
+1.635e+02
+1.582e+02
+1.529e+02
+1.476e+02
+1.423e+02
+1.370e+02
+1.318e+02
+1.265e+02
+1.212e+02
+1.159e+02
+1.106e+02
+1.053e+02
+1.000e+02
Y
X
ODB: 2dHeatTransfer_trapez.odb Abaqus/Standard Student Edition 2019 Mon Dec 13 08:20:02 Srodkowoeur
Step: Step-1
Increment 19: Step Time = 1.000
Primary Var: NT11


NT11
+2.775e+02
+2.627e+02
+2.479e+02
+2.331e+02
+2.183e+02
+2.035e+02
+1.887e+02
+1.740e+02
+1.592e+02
+1.444e+02
+1.296e+02
+1.148e+02
+1.000e+02
Y
X
ODB: 2dHeatTransfer_trapez.odb Abaqus/Standard Student Edition 2019 Mon Dec 13 08:20:02 Srodkowoeur
Y
X
Step: Step-1
Increment 59: Step Time = 5.000
Primary Var: NT11


NT11
+3.486e+02
+3.279e+02
+3.071e+02
+2.864e+02
+2.657e+02
+2.450e+02
+2.243e+02
+2.036e+02
+1.829e+02
+1.621e+02
+1.414e+02
+1.207e+02
+1.000e+02
Y
X
Y
X
ODB: 2dHeatTransfer_trapez.odb Abaqus/Standard Student Edition 2019 Mon Dec 13 08:20:02 Srodkowoeur
Step: Step-1
Increment 79: Step Time = 10.00
Primary Var: NT11
Deformed Var: not set Deformation Scale Factor: not set


NT11
+3.977e+02
+3.729e+02
+3.481e+02
+3.233e+02
+2.985e+02
+2.737e+02
+2.489e+02
+2.241e+02
+1.993e+02
+1.745e+02
+1.497e+02
+1.249e+02
+1.001e+02
Y
X
ODB: 2dHeatTransfer_trapez.odb Abaqus/Standard Student Edition 2019 Mon Dec 13 08:20:02 Srodkowoeur
Y
X
Step: Step-1
Increment 99: Step Time = 15.00
Primary Var: NT11


NT11
+4.360e+02
+4.081e+02
+3.801e+02
+3.521e+02
+3.241e+02
+2.962e+02
+2.682e+02
+2.402e+02
+2.122e+02
+1.843e+02
+1.563e+02
+1.283e+02
+1.003e+02
Y
X
ODB: 2dHeatTransfer_trapez.odb Abaqus/Standard Student Edition 2019 Mon Dec 13 08:20:02 Srodkowoeur
Step: Step-1
Increment 109: Step Time = 20.00
Primary Var: NT11
Deformed Var: not set Deformation Scale Factor: not set


NT11
+6.088e+02
+5.687e+02
+5.285e+02
+4.883e+02
+4.481e+02
+4.079e+02
+3.677e+02
+3.275e+02
+2.873e+02
+2.471e+02
+2.070e+02
+1.668e+02
+1.266e+02
Y
X
ODB: 2dHeatTransfer_trapez.odb Abaqus/Standard Student Edition 2019 Mon Dec 13 08:20:02 Srodkowoeur
Step: Step-1
Increment 189: Step Time = 60.00
Primary Var: NT11