

Problem info

Problem type: Transient Heat Transfer (integration time: 180 s.)

Geometry model class: Plane-Parallel

Problem database file names:

- Problem: *THeat2.pbm*
- Geometry: *Theat2.mod*
- Material Data: *Theat2.dht*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *Temperature Field: Theat2_i.pbm*

Geometry model

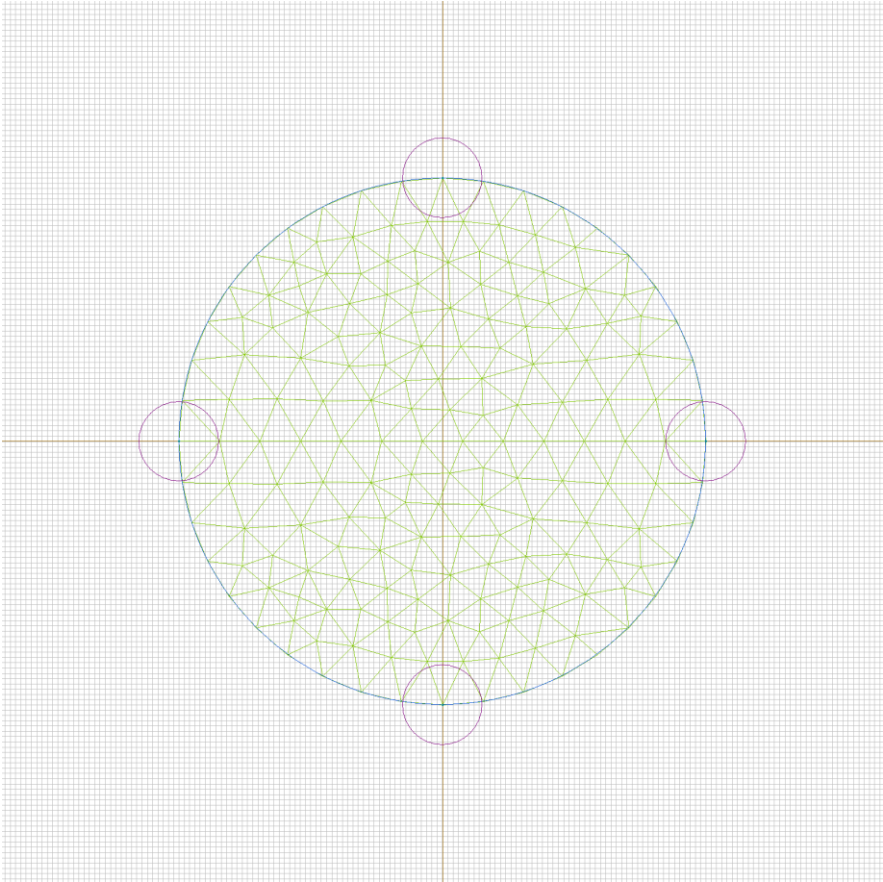


Table 1. Geometry model statistics

	With Label	Total
Blocks	1	1
Edges	1	4
Vertices	0	4

Number of nodes: 178.

Labelled objects

There are following labelled objects in the geometry model (Material Data file could contain more labels, but only those labels that assigned to geometric objects are listed)

Blocks:

- [wire](#)
-

Edges:

- [conv](#)
-

Vertices:

Detailed information about each label is listed below.

Labelled objects: block "wire"

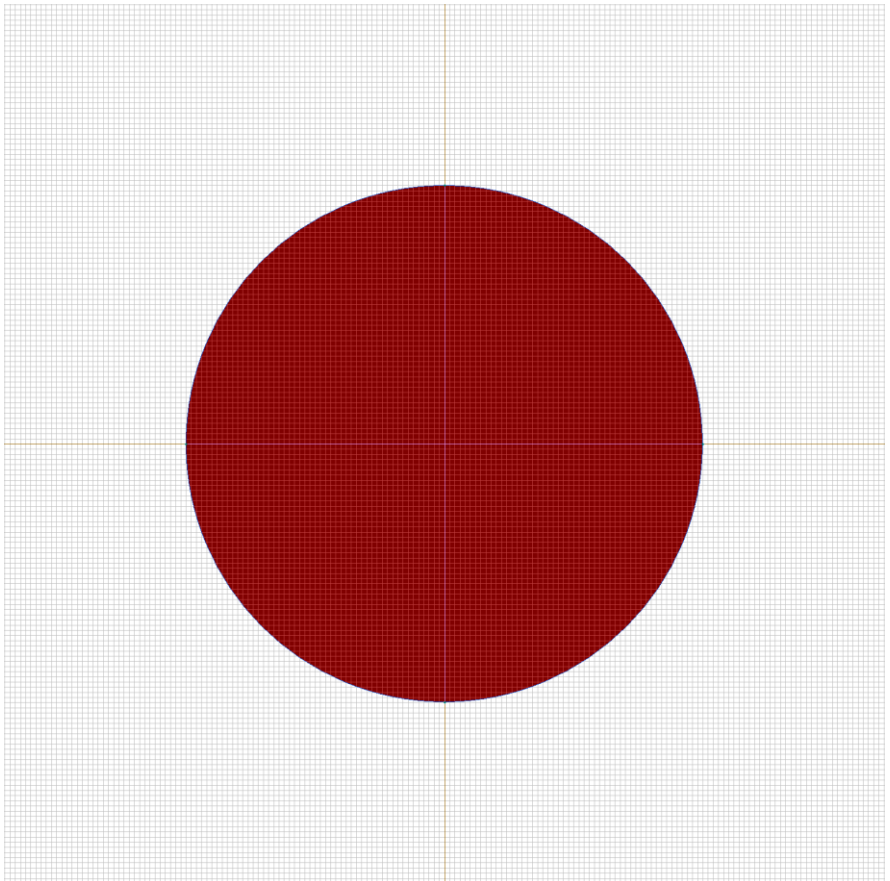
There are (1) objects with this label

Thermal conductivity: $\lambda_x=391$ [W/(K*m)],

$\lambda_y=391$ [W/(K*m)]

Specific heat: $C=383$ [J/(kg*K)]

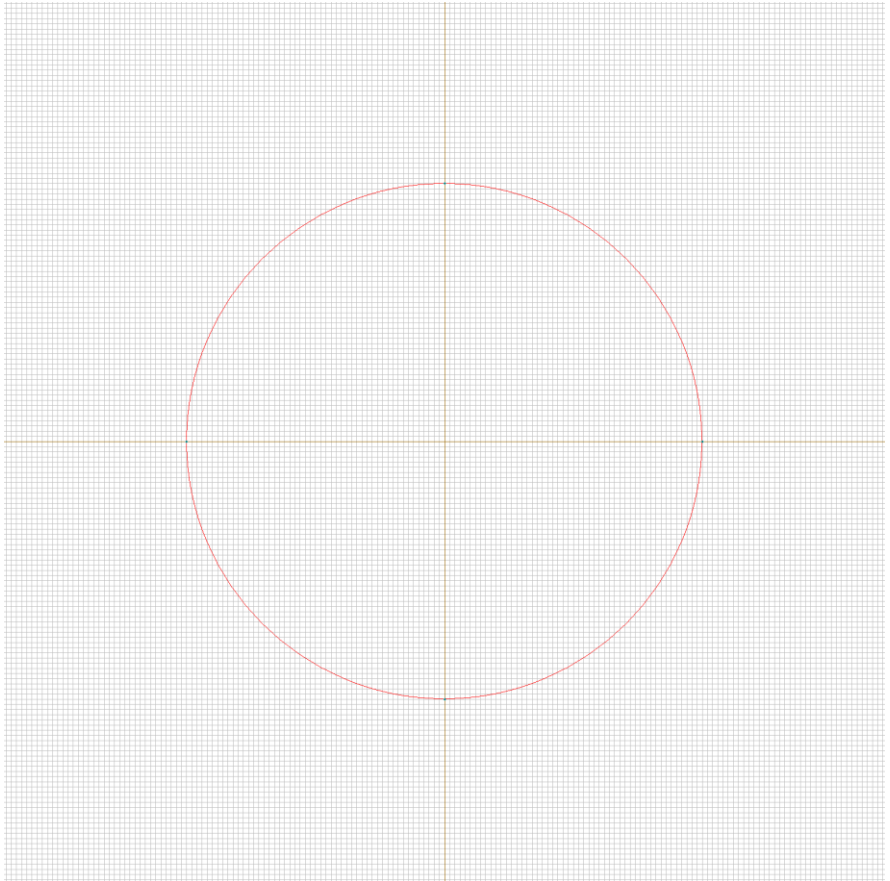
Mass density: $\rho=8930$ [kg/m³]



Labelled objects: edge "conv"

There are (4) objects with this label

Convection: $\alpha=10$ [W/(K*m²)], temperature $T_0=-233.15$ [K]



[Problem info](#)

[Geometry model](#)

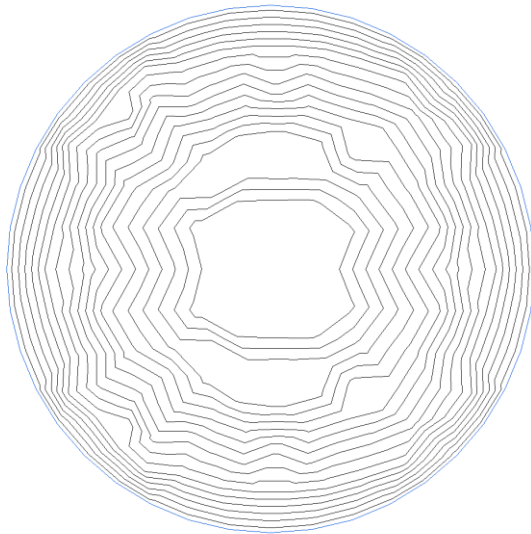
[Labelled Objects](#)

[Results](#)

[Nonlinear dependencies](#)

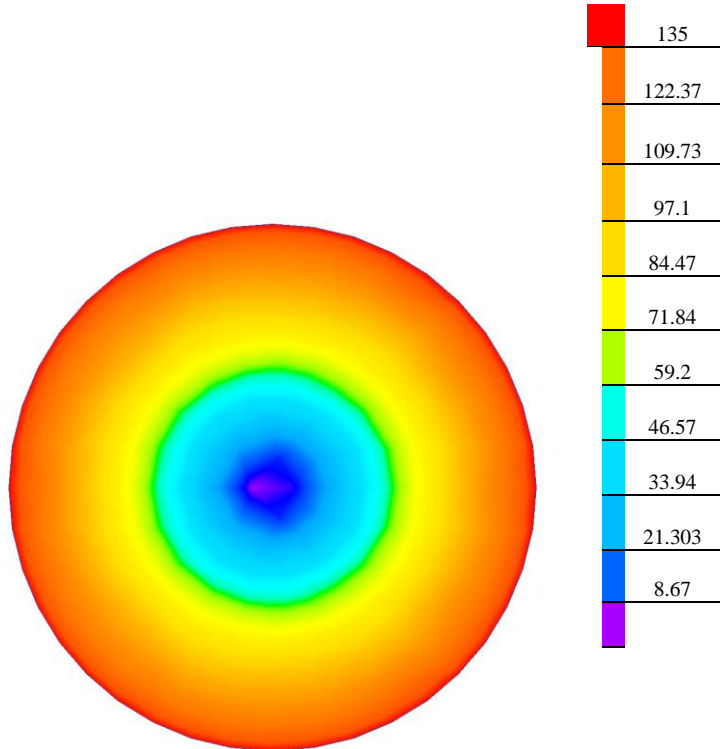
Results

Field lines



Results

Color map of Heat flux $|F|$ [W/m²]



Nonlinear dependencies

No non-linear dependencies are used in this problem data