

# Problem info

Problem type: AC Magnetics , frequency: 100000000 Hz,

Geometry model class: Plane-Parallel

Problem database file names:

- Problem: *microstrip\_inductance.pbm*
- Geometry: *Microstrip.mod*
- Material Data: *Microstrip\_inductance.dhe*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

# Geometry model

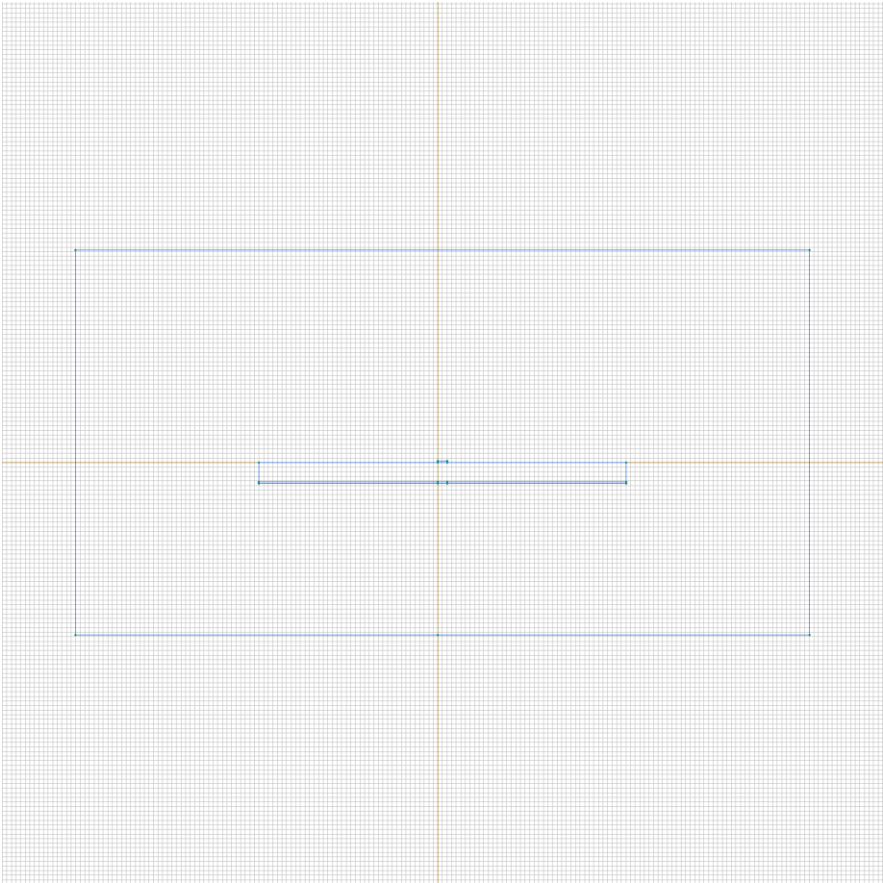


Table 1. Geometry model statistics

	With Label	Total
Blocks	4	4
Edges	3	21
Vertices	0	19

Number of nodes: 62682.

# 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:

- [trace1](#)
- [ground](#)
- [air](#)
- [dielectric](#)
- 

Edges:

- [V+](#)
- [V0](#)
- [boundary](#)
- 

Vertices:

Detailed information about each label is listed below.

Labelled objects: block "trace1"

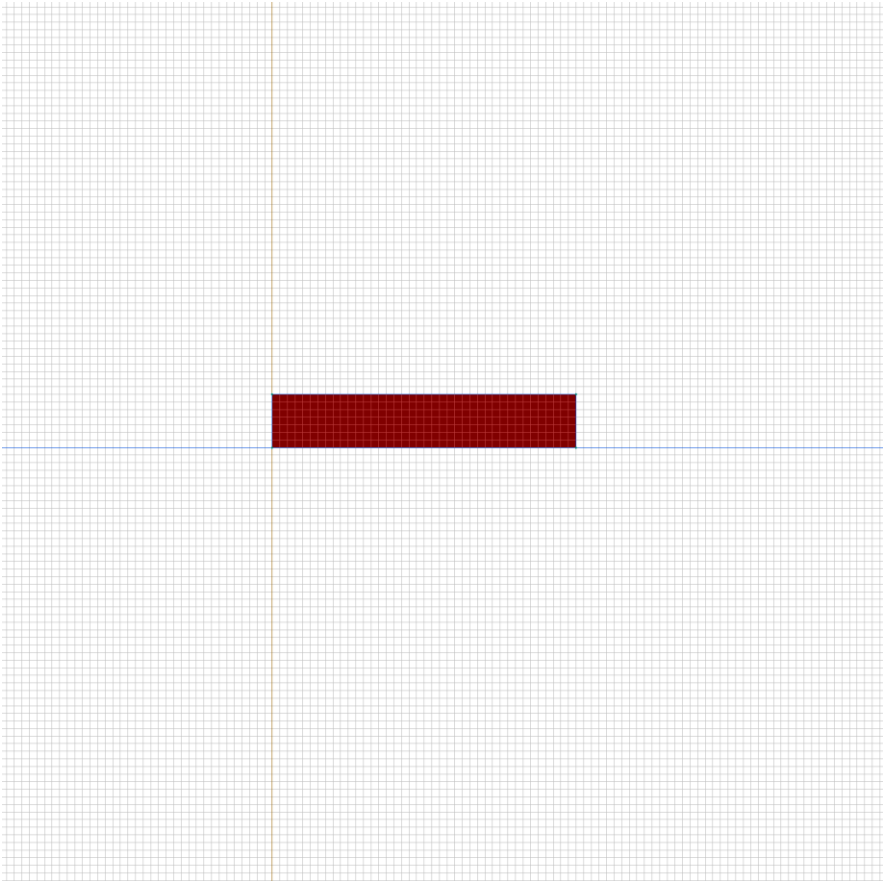
There are (1) objects with this label

Relative magnetic permeability:  $\mu_x=1$ ,  $\mu_y=1$

Electric conductivity:  $\sigma=56000000$  [S/m]

Total current:  $I=0.000001$  [A], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "ground"

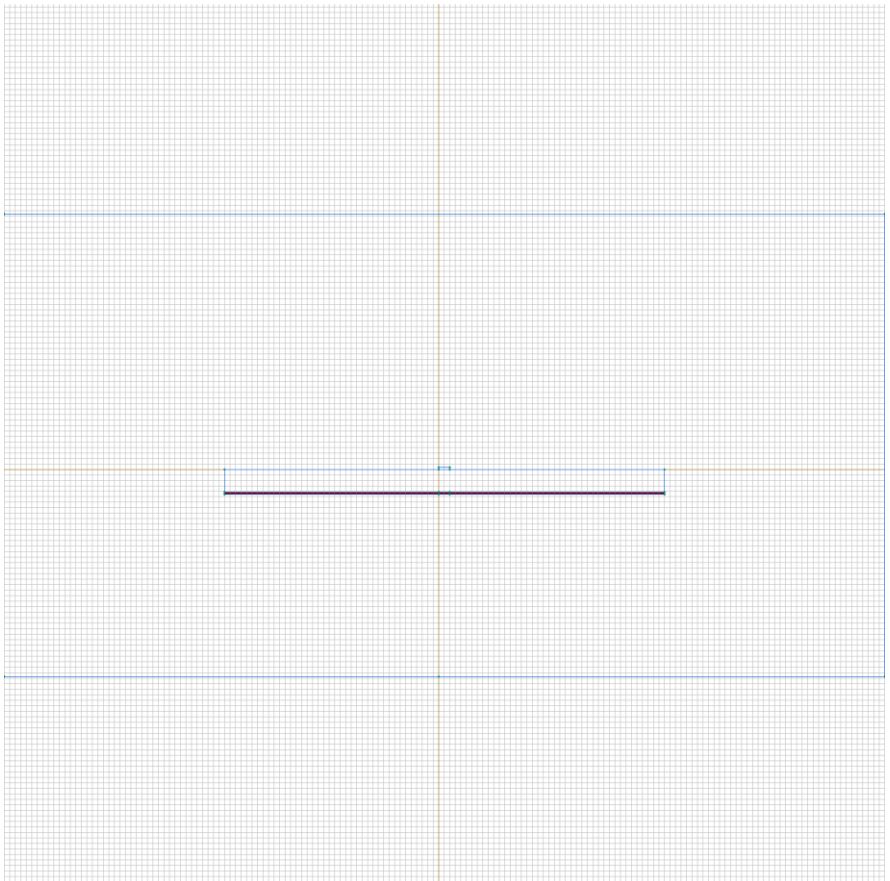
There are (1) objects with this label

Relative magnetic permeability:  $\mu_x=1$ ,  $\mu_y=1$

Electric conductivity:  $\sigma=56000000$  [S/m]

Total current:  $I=-0.000001$  [A], phase 0 [deg]

Conductor's connection: in parallel



Labelled objects: block "air"

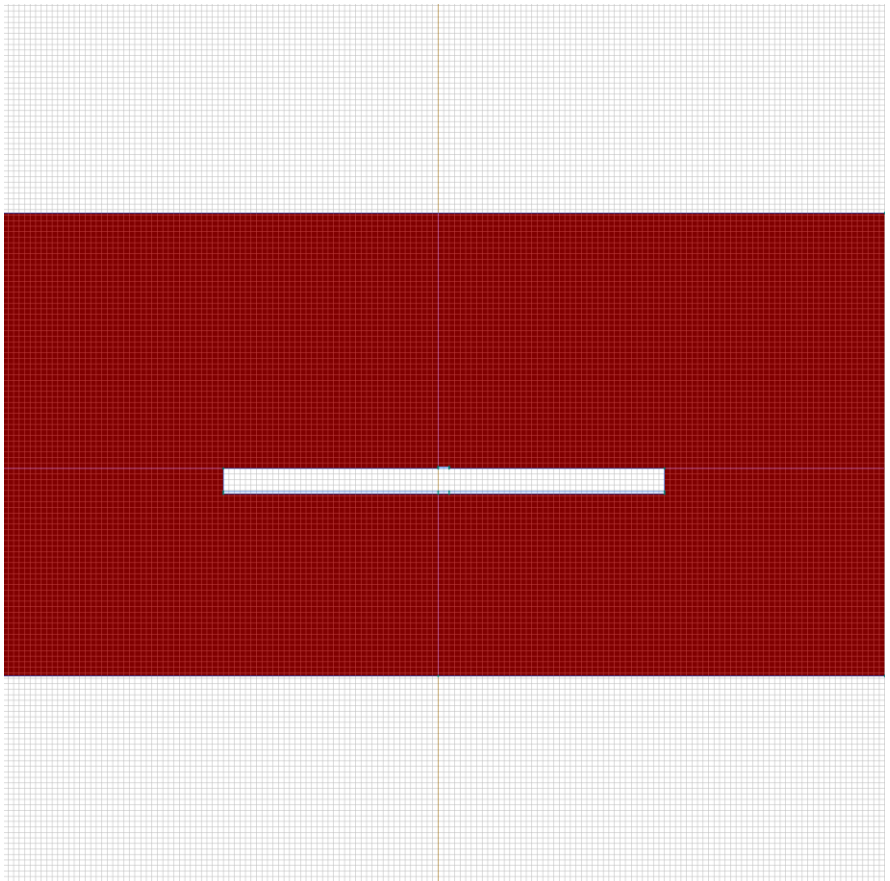
There are (1) objects with this label

Relative magnetic permeability:  $\mu_x=1$ ,  $\mu_y=1$

Electric conductivity:  $\sigma=0$  [S/m]

Current density:  $j=0$  [A/m<sup>2</sup>], phase 0 [deg]

Conductor's connection: in parallel



## Labelled objects: block "dielectric"

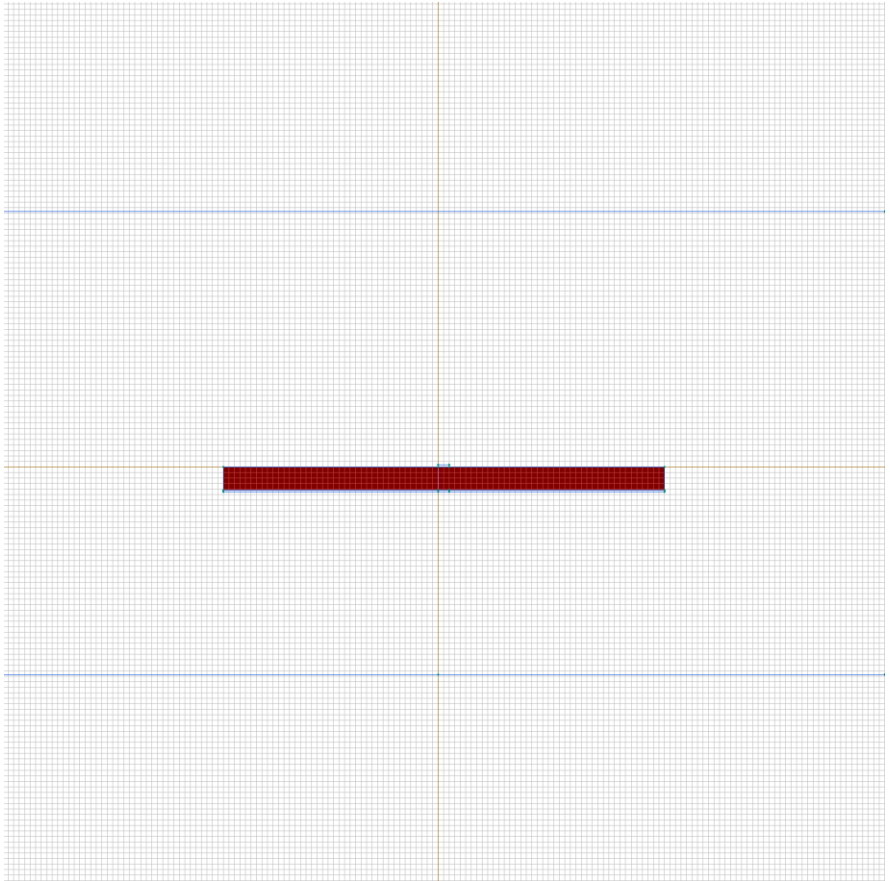
There are (1) objects with this label

Relative magnetic permeability:  $\mu_x=1$ ,  $\mu_y=1$

Electric conductivity:  $\sigma=0$  [S/m]

Current density:  $j=0$  [A/m<sup>2</sup>], phase 0 [deg]

Conductor's connection: in parallel

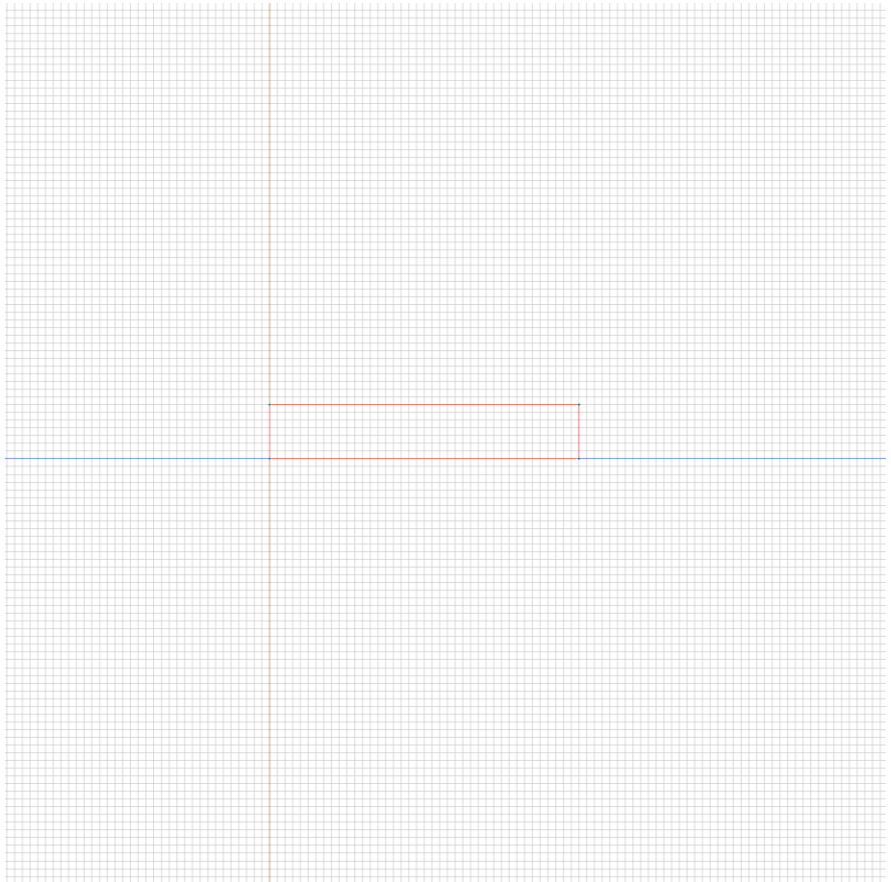




Labelled objects: edge "V+"

There are (4) objects with this label

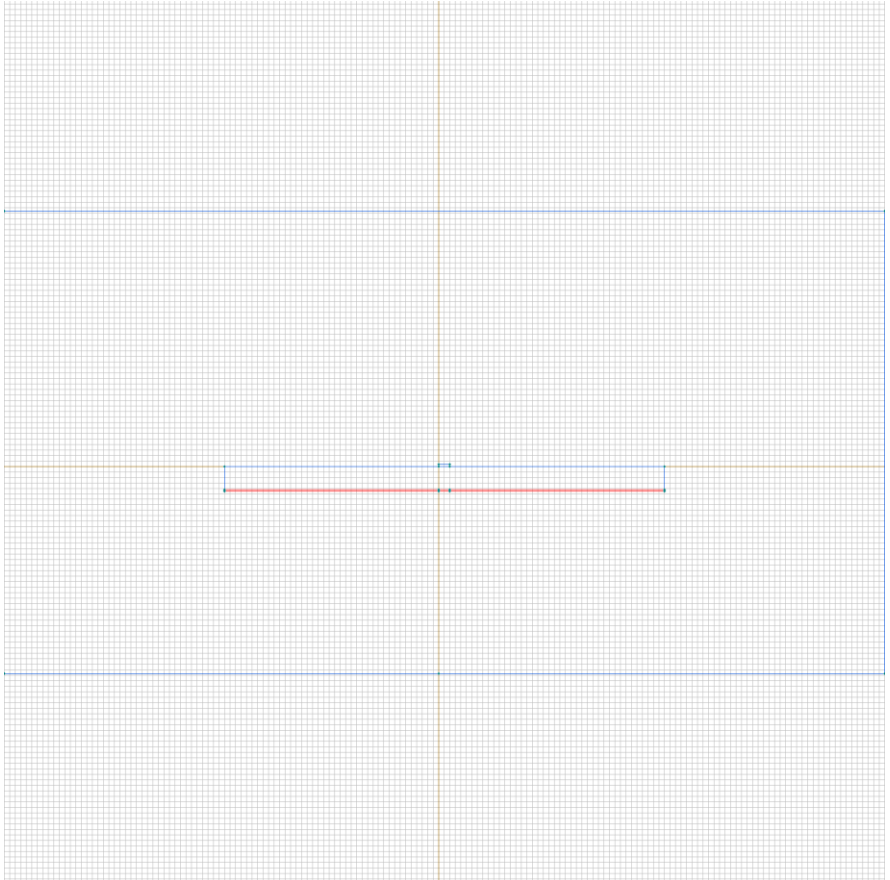
No material data (boundary conditions) are specified



Labelled objects: edge "V0"

There are (8) objects with this label

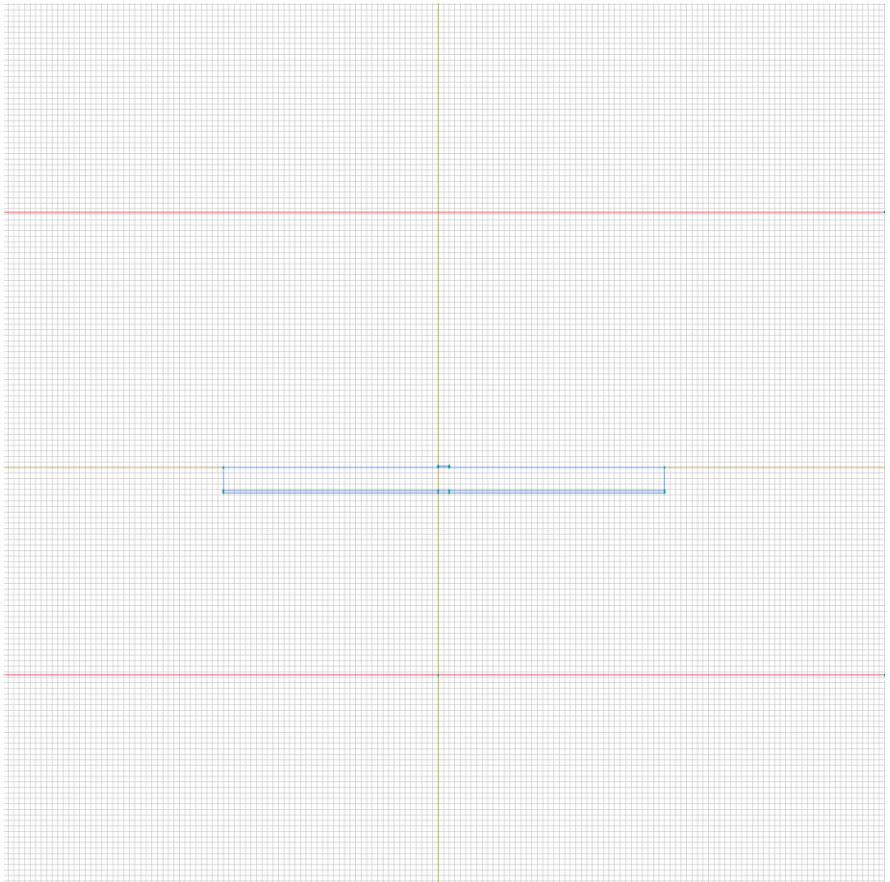
No material data (boundary conditions) are specified



Labelled objects: edge "boundary"

There are (5) objects with this label

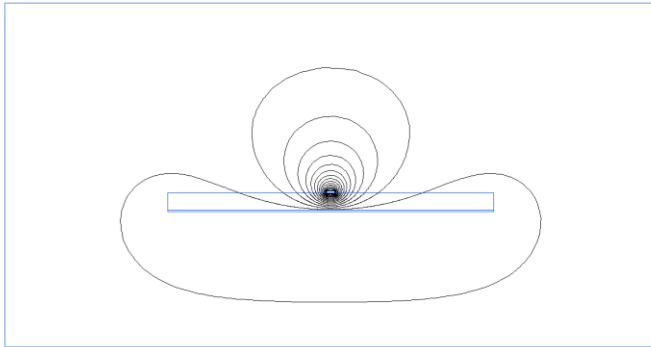
Magnetic potential:  $A=0$  [Wb/m], phase 0 [deg]





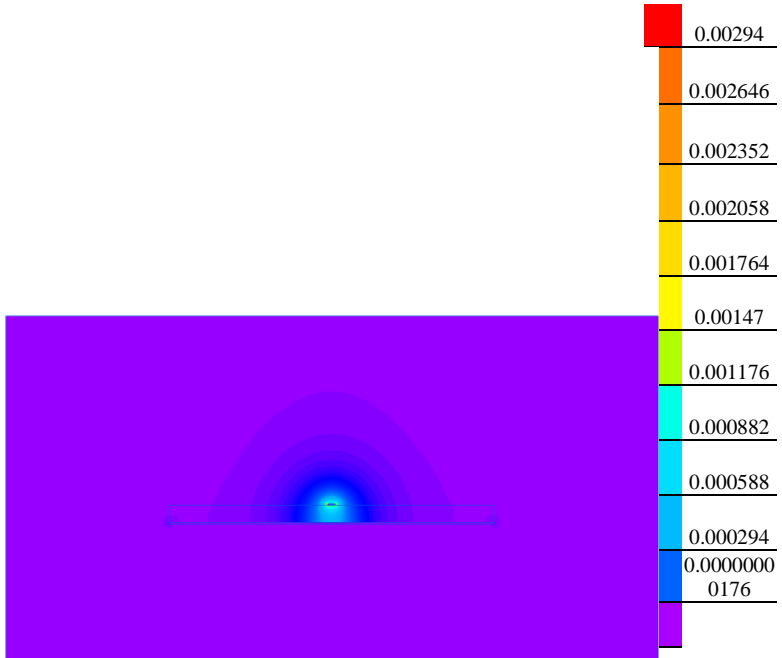
# Results

Field lines



# Results

Color map of Strength  $|H|$  [A/m]



# Nonlinear dependencies

No non-linear dependencies are used in this problem data