

Problem info

Problem type: Transient Electric (integration time: 25 s.)

Geometry model class: Plane-Parallel

Problem database file names:

- Problem: *Circular.pbm*
- Geometry: *Circular.mod*
- Material Data: *Circular.dtv*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

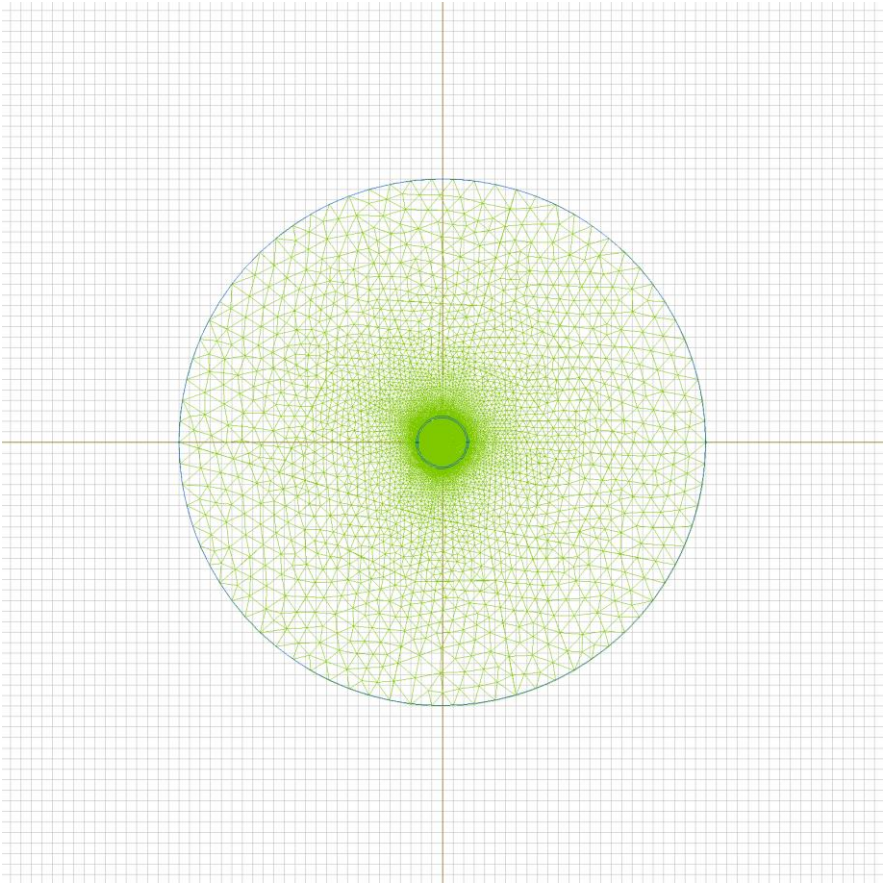


Table 1. Geometry model statistics

	With Label	Total
Blocks	2	2
Edges	3	8
Vertices	0	8

Number of nodes: 18138.

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:

- [Aire](#)
- [Conductor](#)
-

Edges:

- [Exterior](#)
- [Negativo](#)
- [Positivo](#)
-

Vertices:

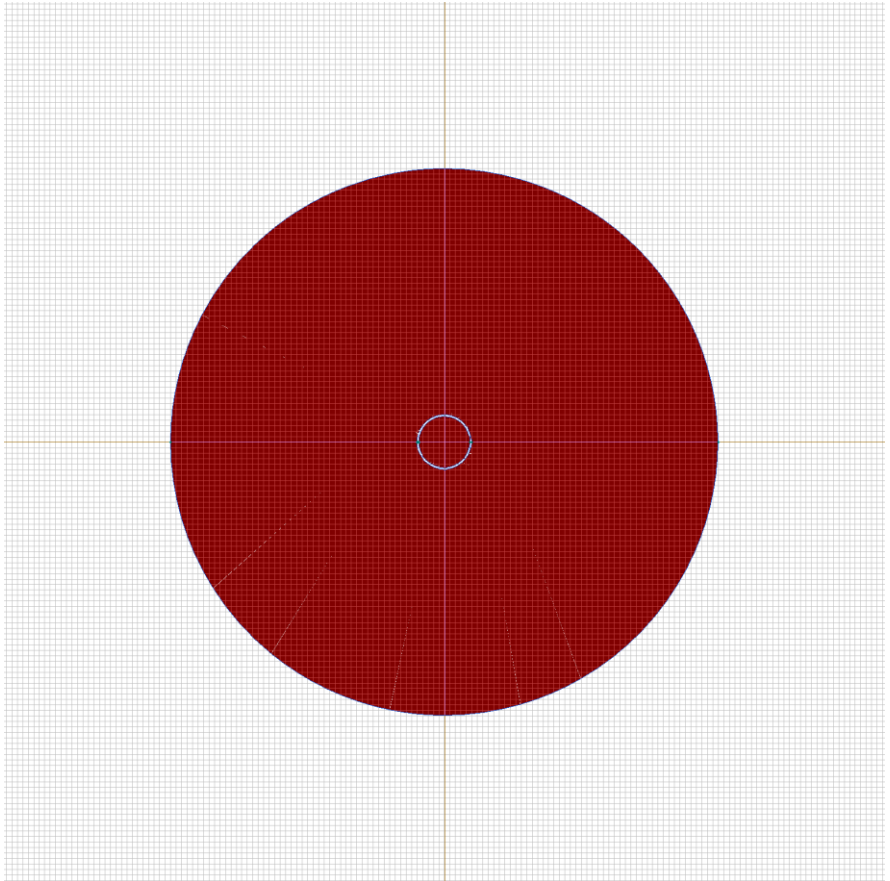
Detailed information about each label is listed below.

Labelled objects: block "Aire"

There are (1) objects with this label

Relative electric permittivity: $\epsilon_{x}=1$, $\epsilon_{y}=1$

Electrical conductivity: $\sigma_{x}=1\text{E-}20$ S/m, $\sigma_{y}=1\text{E-}20$ [S/m]

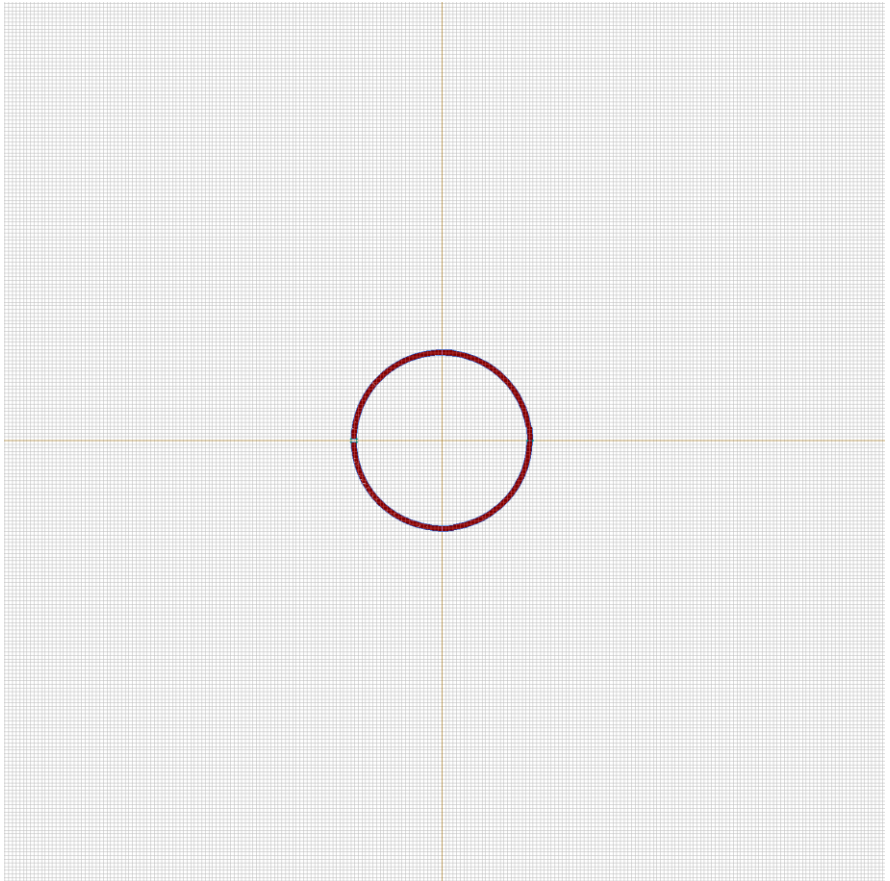


Labelled objects: block "Conductor"

There are (1) objects with this label

Relative electric permittivity: $\epsilon_{x}=1$, $\epsilon_{y}=1$

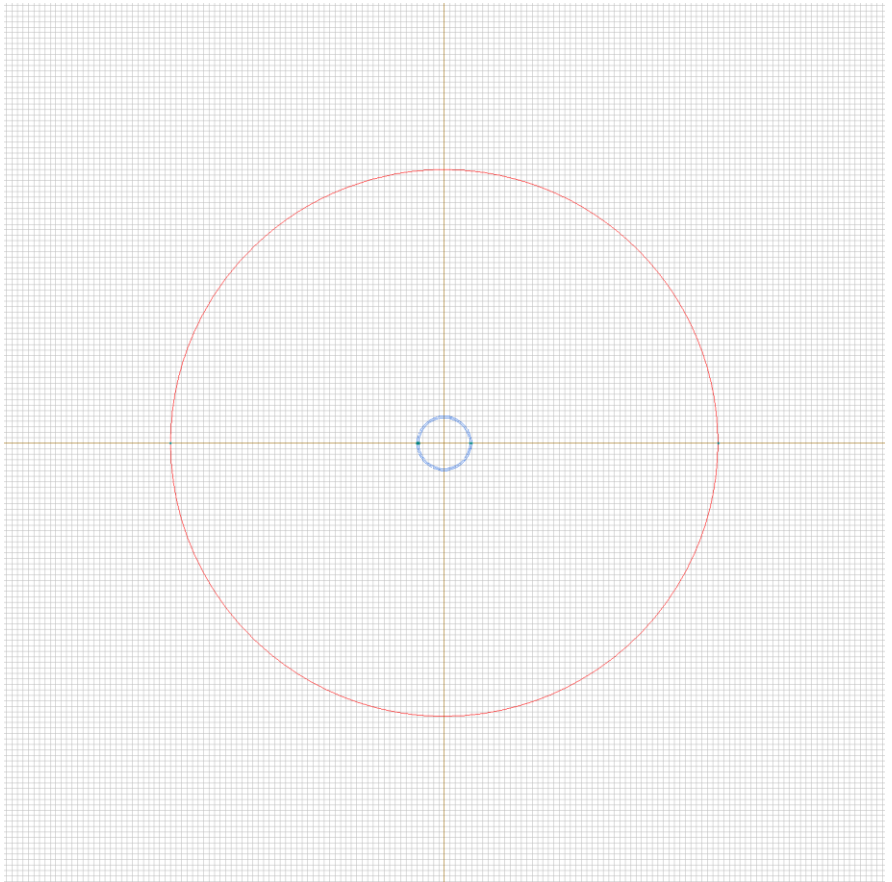
Electrical conductivity: $\sigma_{x}=0.00000000005$ S/m,
 $\sigma_{y}=0.00000000005$ [S/m]



Labelled objects: edge "Exterior"

There are (2) objects with this label

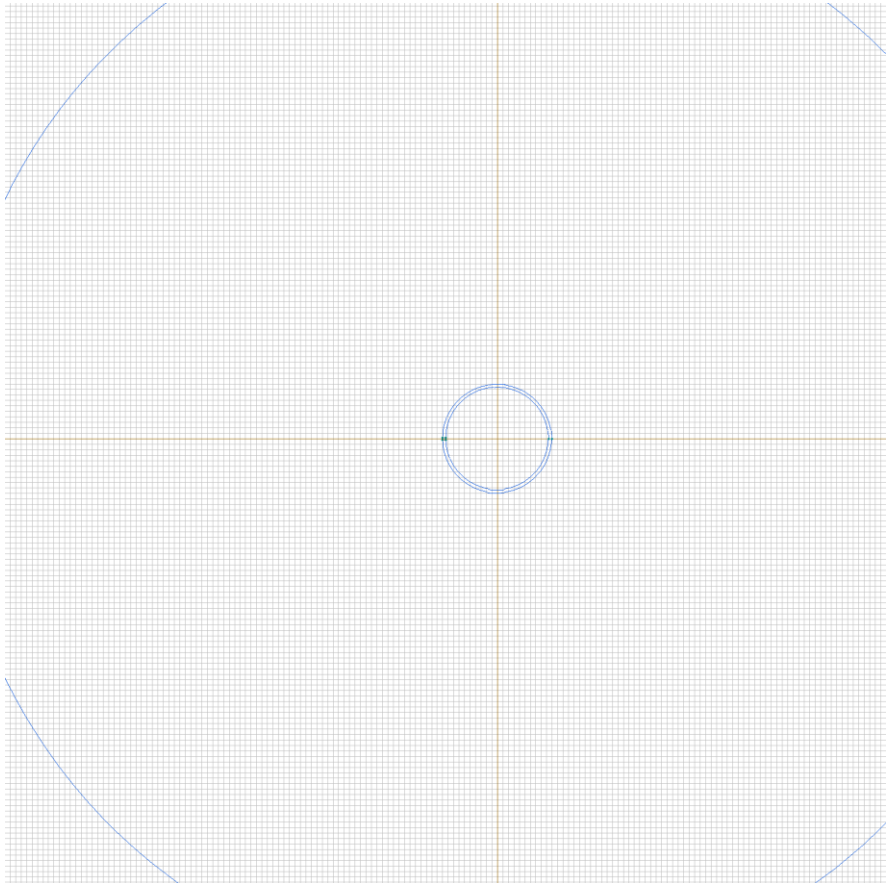
Voltage: $U=0$ [V]



Labelled objects: edge "Negativo"

There are (1) objects with this label

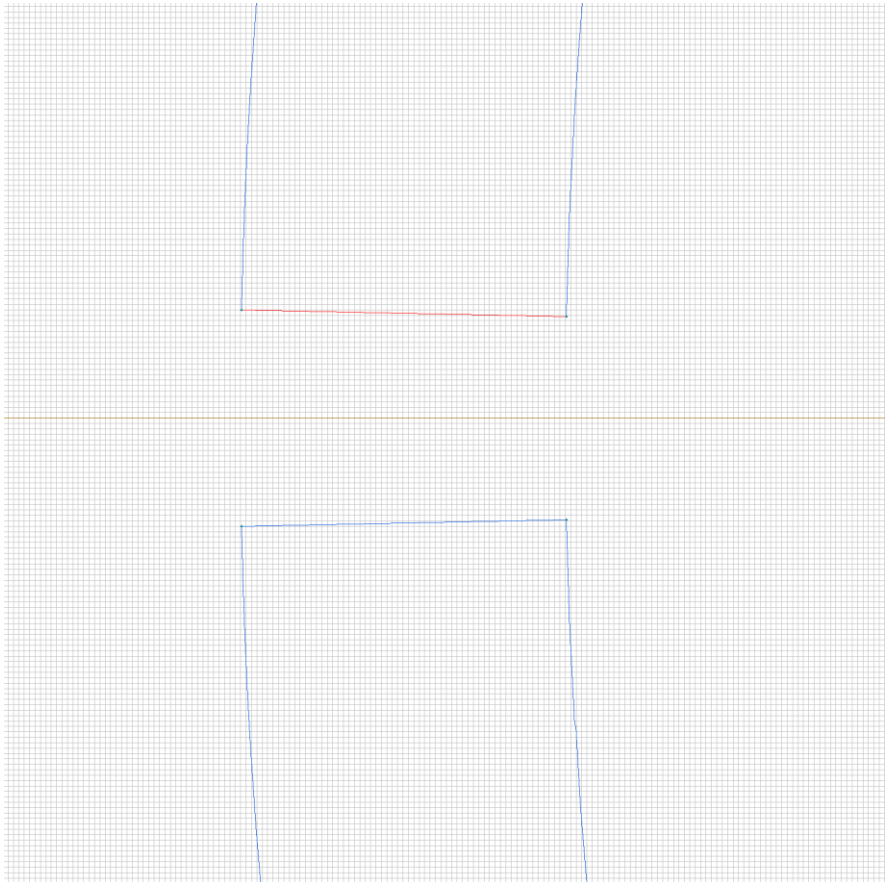
Voltage: $U = -0.5$ [V]



Labelled objects: edge "Positivo"

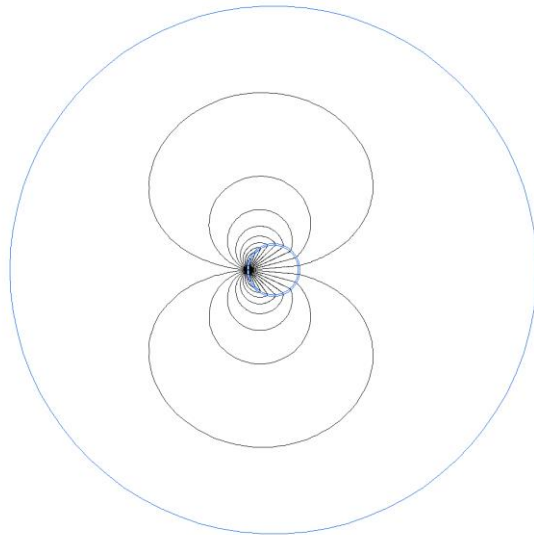
There are (1) objects with this label

Voltage: $U=0.5$ [V]



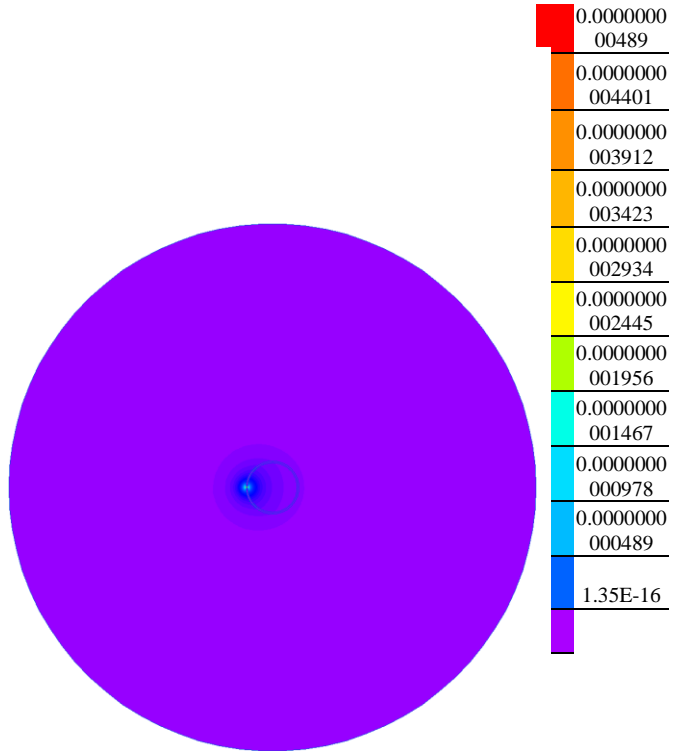
Results

Field lines



Results

Color map of Electric induction $|D|$ [C/m²]



Nonlinear dependencies

No non-linear dependencies are used in this problem data