Problem info

Problem type: Electrostatics
Geometry model class: Plane-Parallel
Problem database file names:

- Problem: *plane_capacitor_real.pbm*
- Geometry: *Plane_capacitor.mod*
- Material Data: *Plane_capacitor.des*
- Material Data 2 (library): *none*
- Electric circuit: *none*

Results taken from other problems:

- *none*

Geometry model

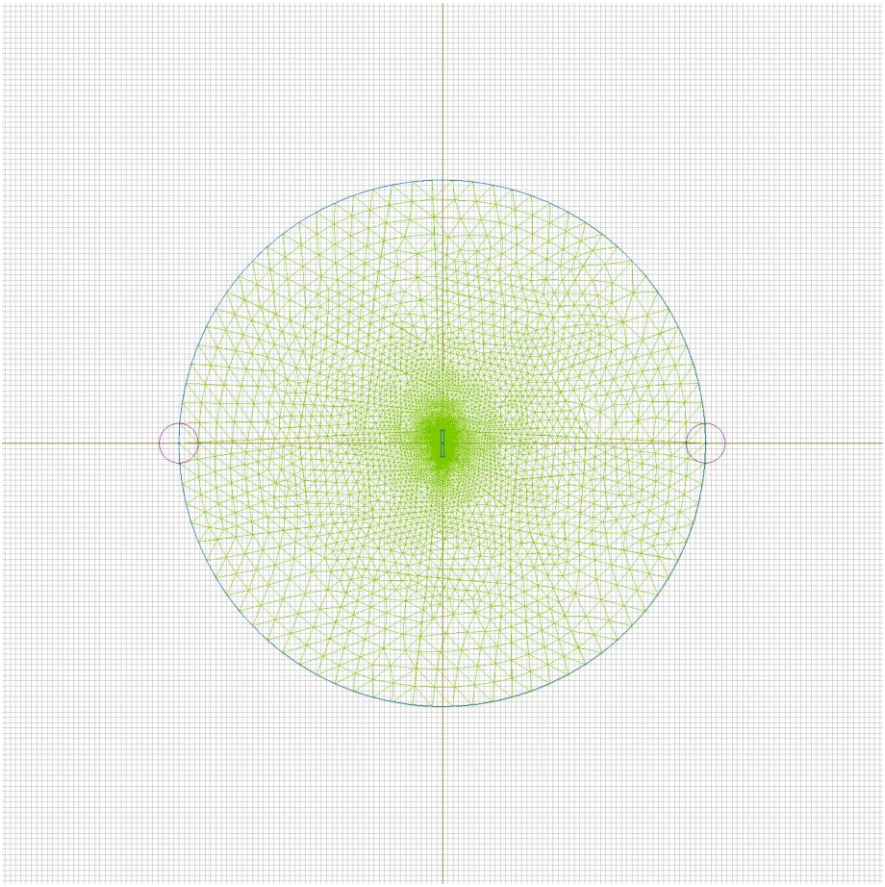


Table 1. Geometry model statistics

	With Label	Total
Blocks	2	2
Edges	2	6
Vertices	3	7

Number of nodes: 16788.

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)

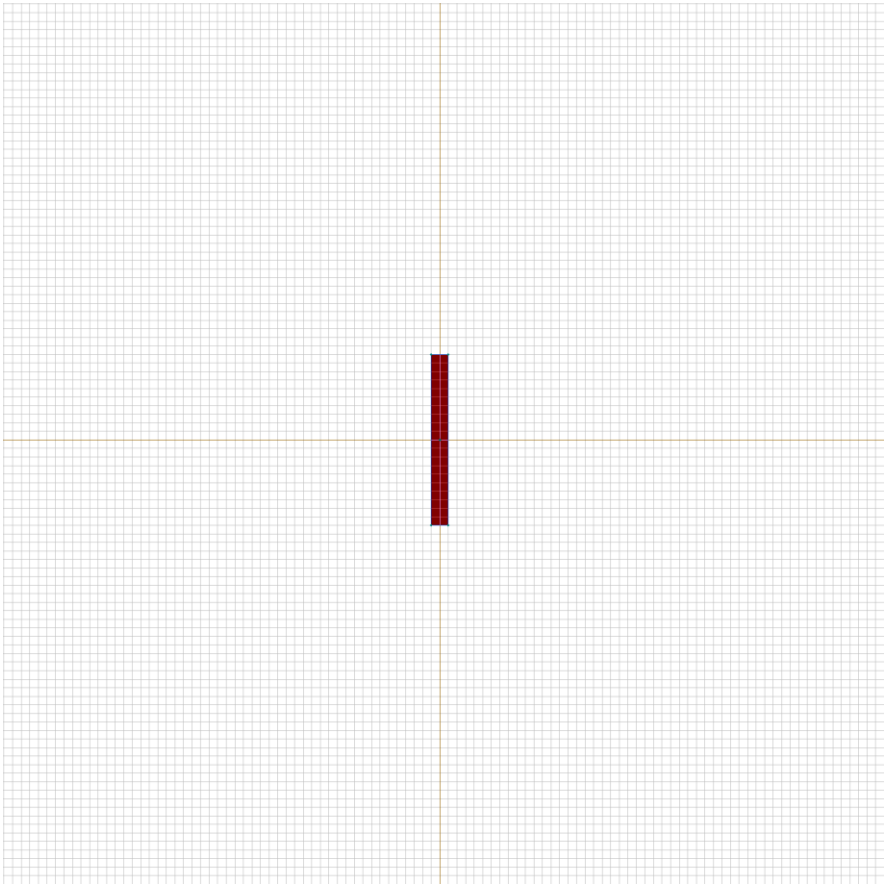
Blocks:	Edges:	Vertices:
• dielectric • air •	• left plate • right plate •	• -q • +q • reference point •

Detailed information about each label is listed below.

Labelled objects: block "dielectric"

There are (1) objects with this label

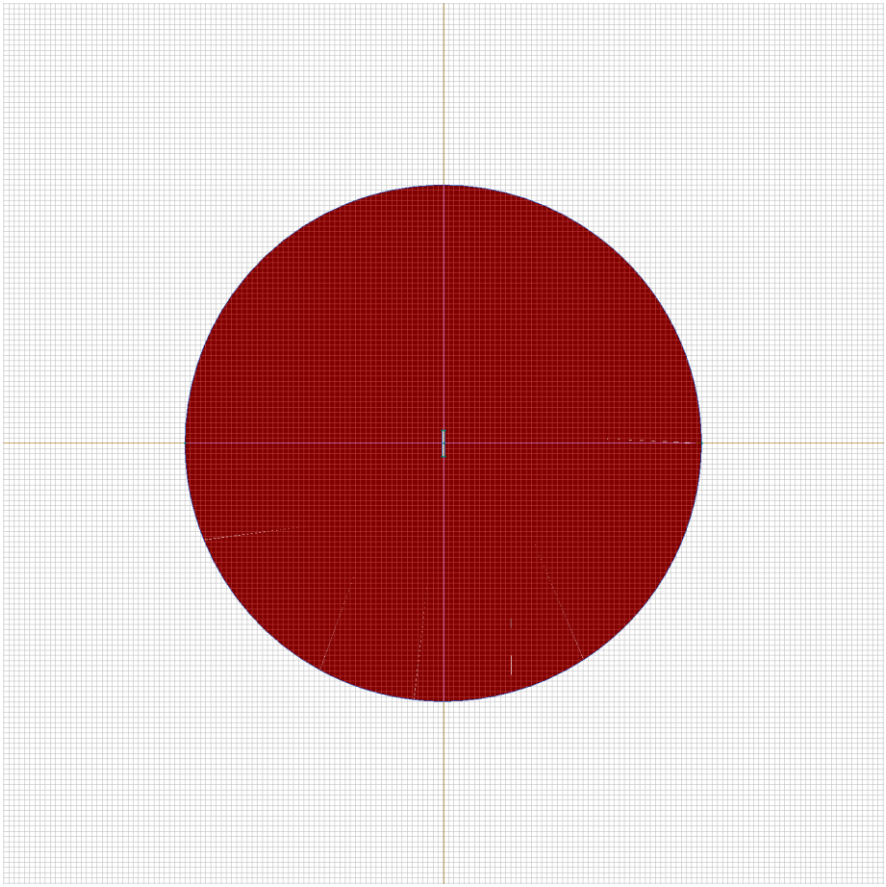
Relative electric permittivity eps_x=1, eps_y=1



Labelled objects: block "air"

There are (1) objects with this label

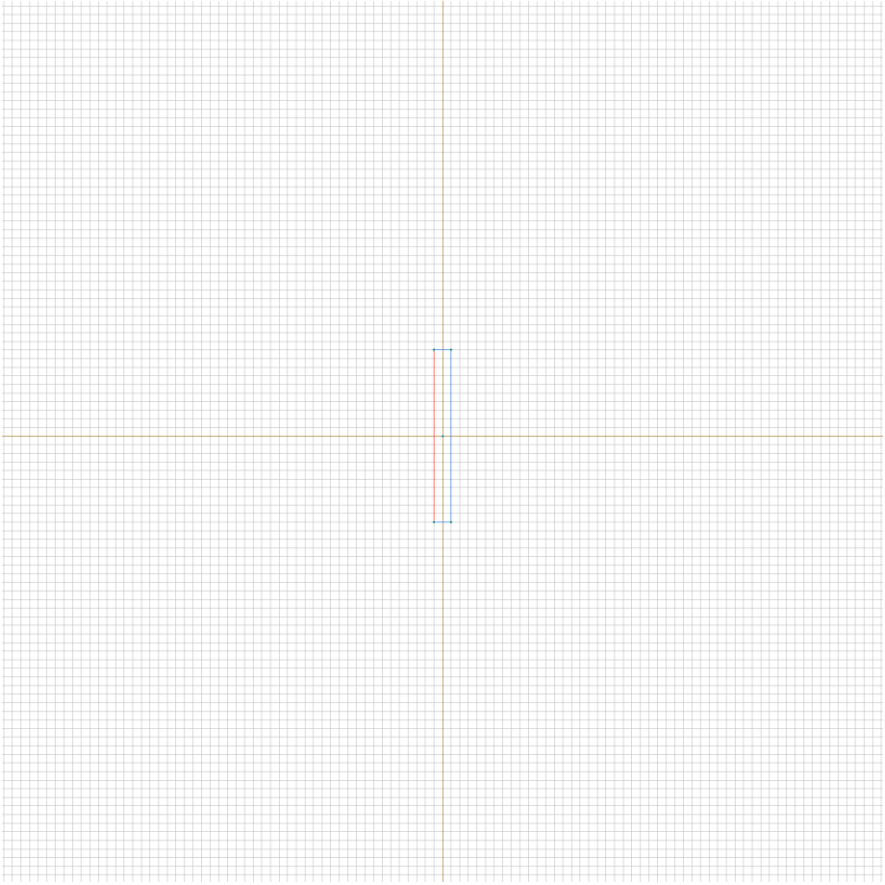
Relative electric permittivity eps_x=1, eps_y=1



Labelled objects: edge "left plate"

There are (1) objects with this label

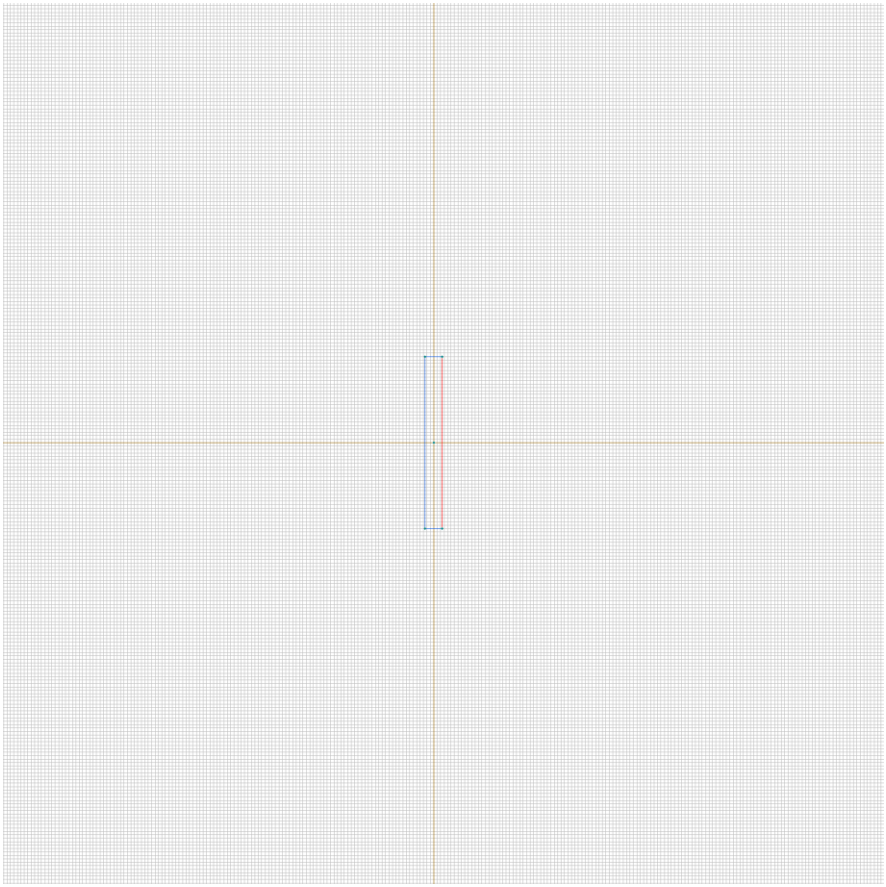
Floating conductor (equal voltage)



Labelled objects: edge "right plate"

There are (1) objects with this label

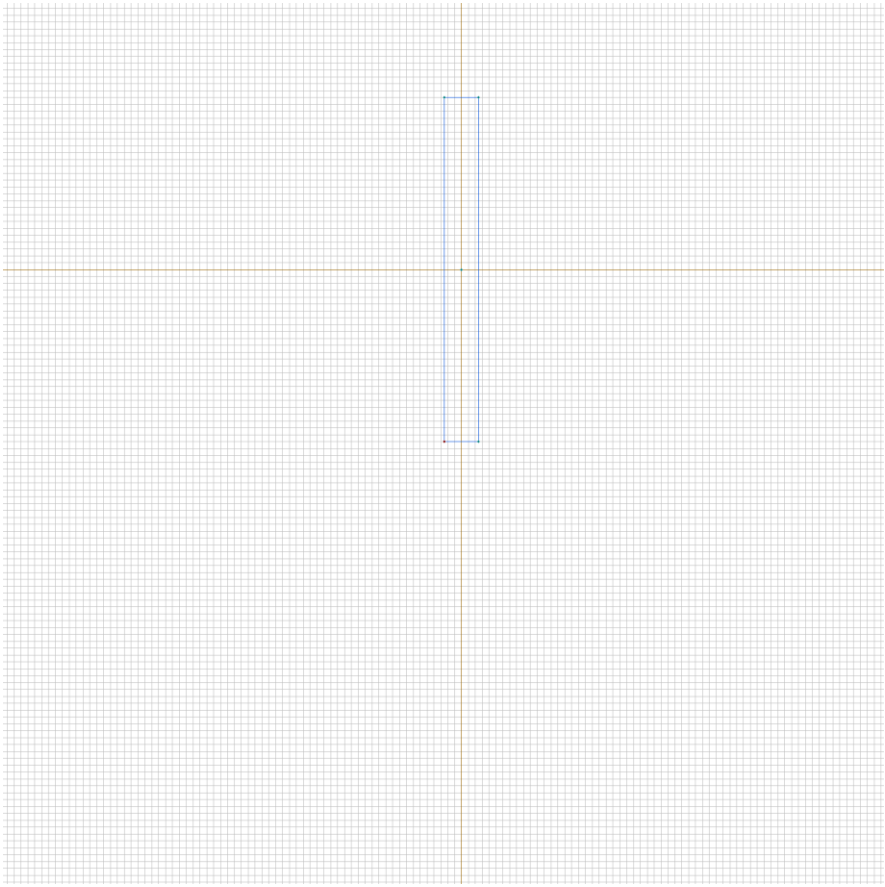
Floating conductor (equal voltage)



Labelled objects: vertex "-q"

There are (1) objects with this label

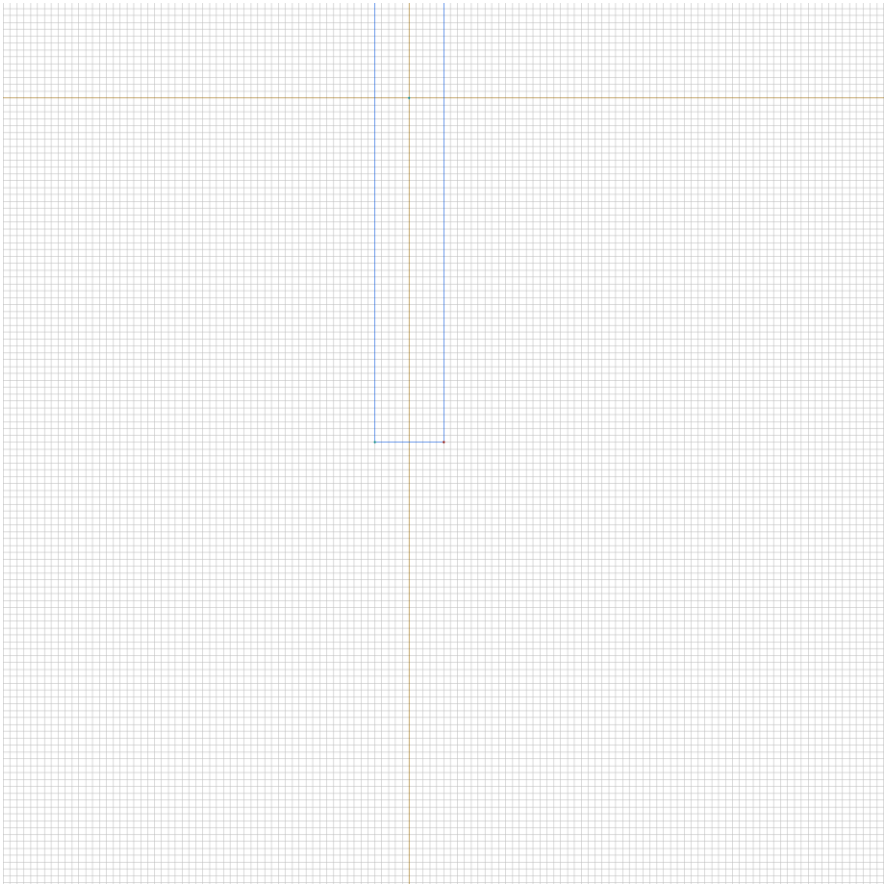
Electric charge q=-0.000000001 [C/m]



Labelled objects: vertex "+q"

There are (1) objects with this label

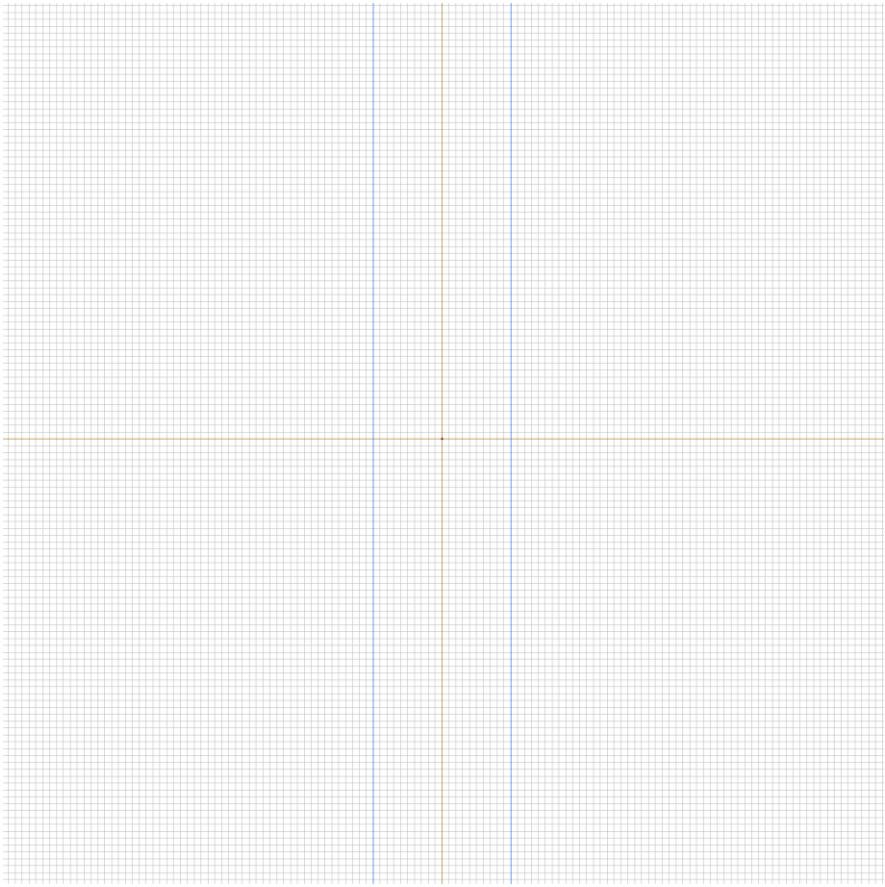
Electric charge q=0.000000001 [C/m]



Labelled objects: vertex "reference point"

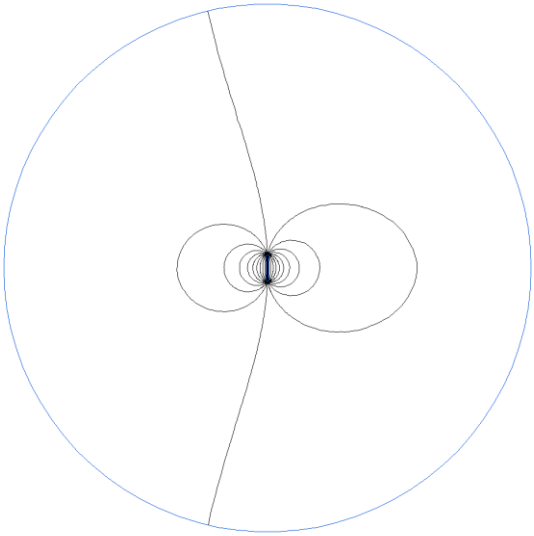
There are (1) objects with this label

Voltage U=0 [V]



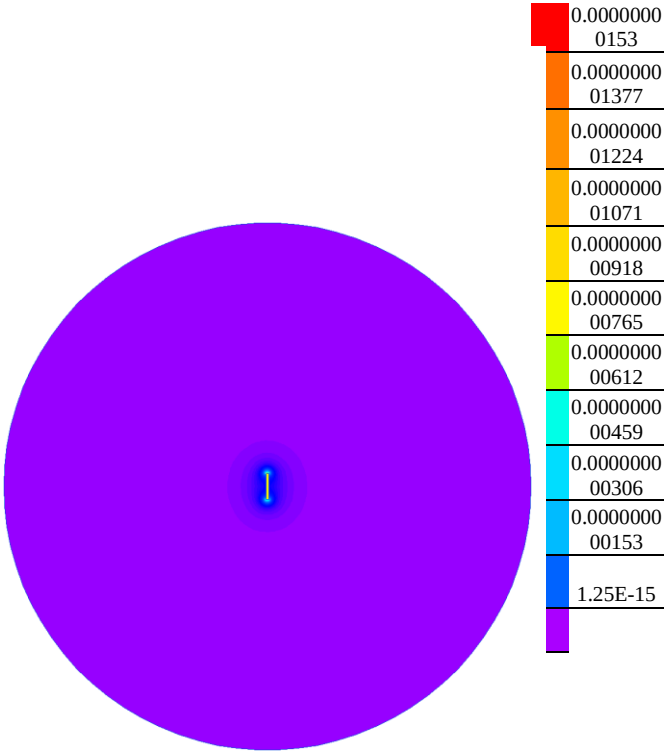
Results

Field lines



Results

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



Nonlinear dependencies

No non-linear dependencies are used in this problem data