

На картинках изображена ошибка найденной функции.

Структурированная сетка

Number of cells: 1024

Number of faces: 1568

Number of edges: 545

Number of nodes: 545

Number of Dirichlet nodes: 64

size = 546

Linear solver iterations: 6

#nodes = 545

Mesh diam = 0.0625

|err|_C = 1.22313e+06

+=====

| T_assemble = 0.045863

| T_precond = 0.006460

| T_solve = 0.004335

| T_IO = 0.034316

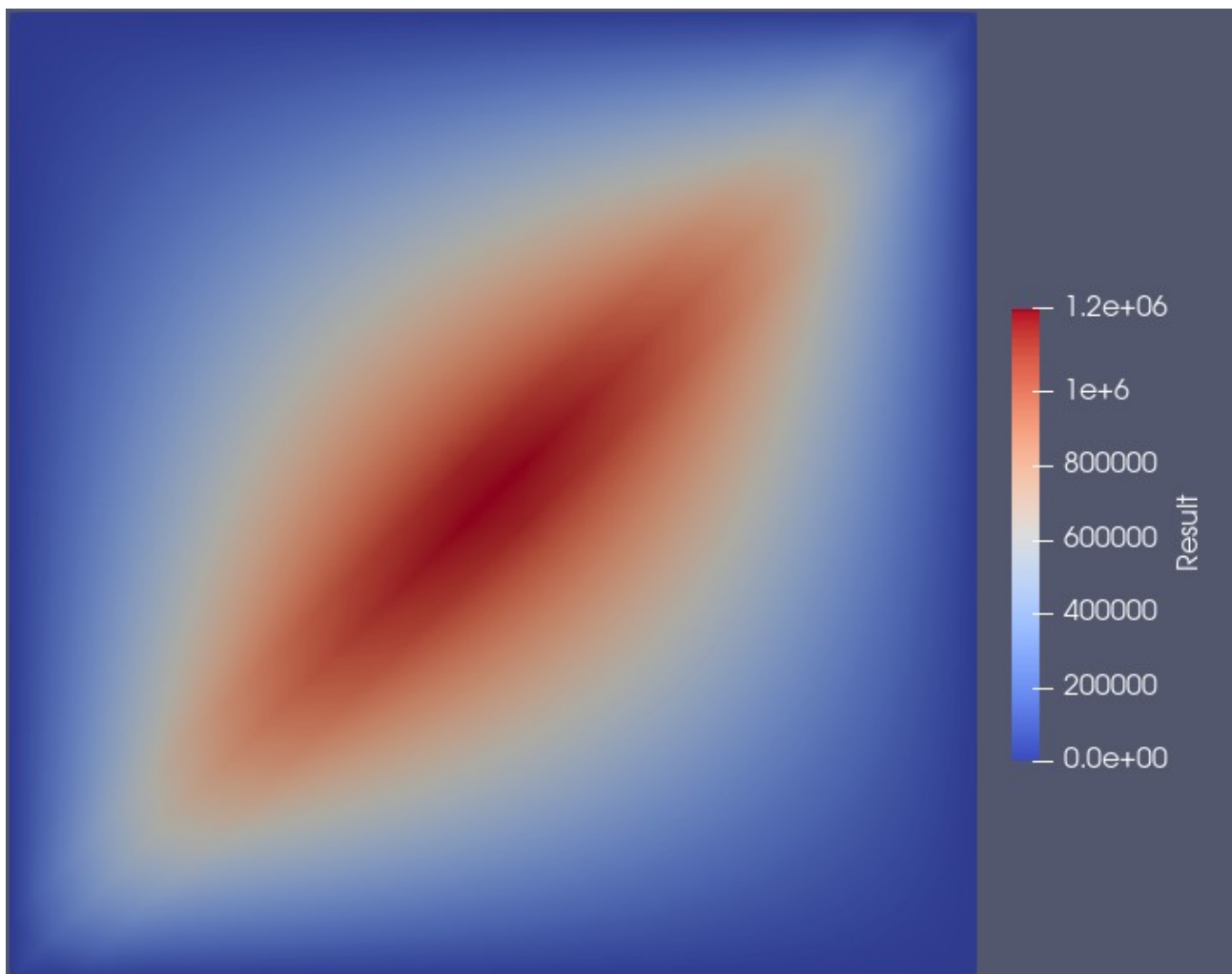
| T_update = 0.007430

| T_init = 0.013431

+-----

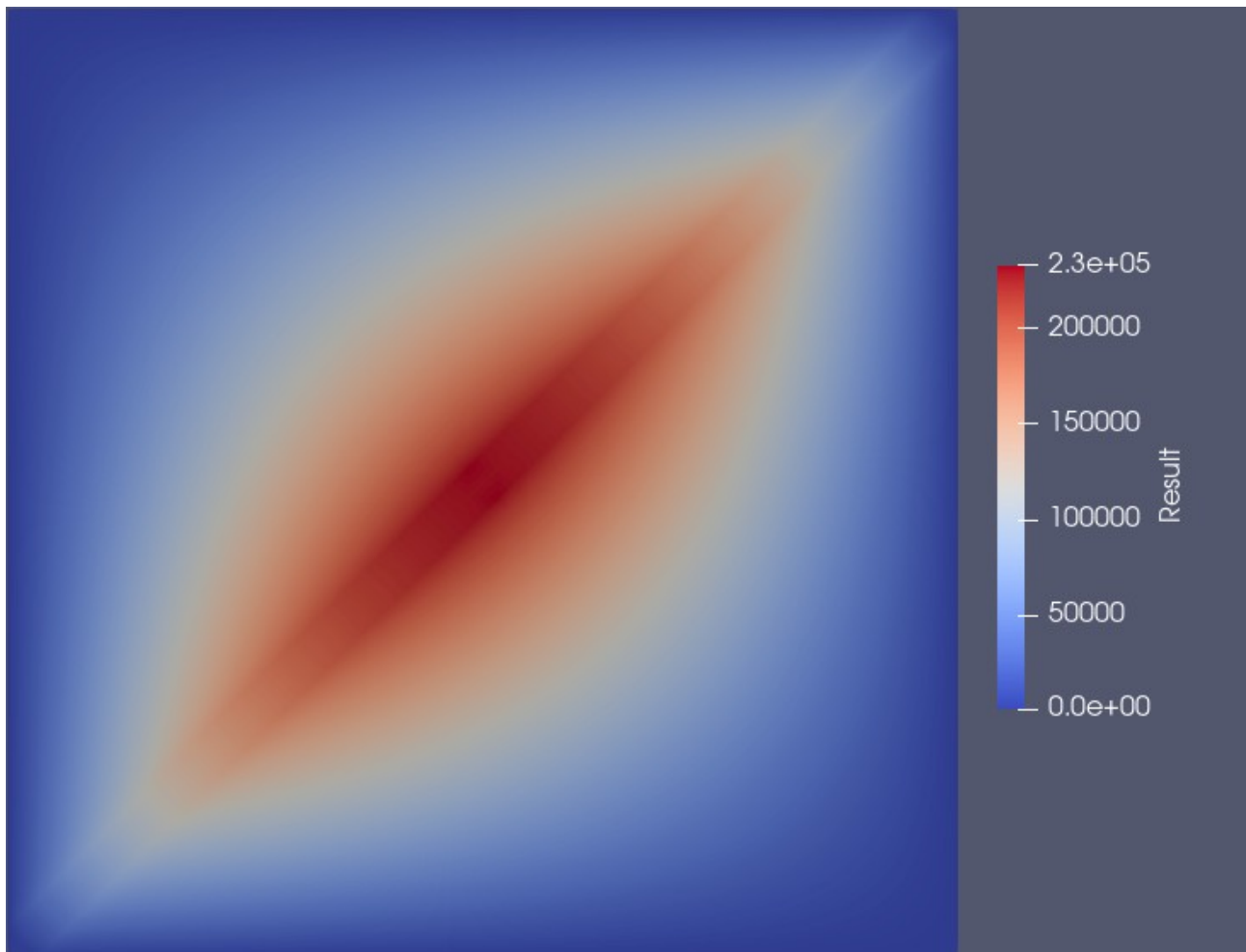
| T_total = 0.111903

+=====



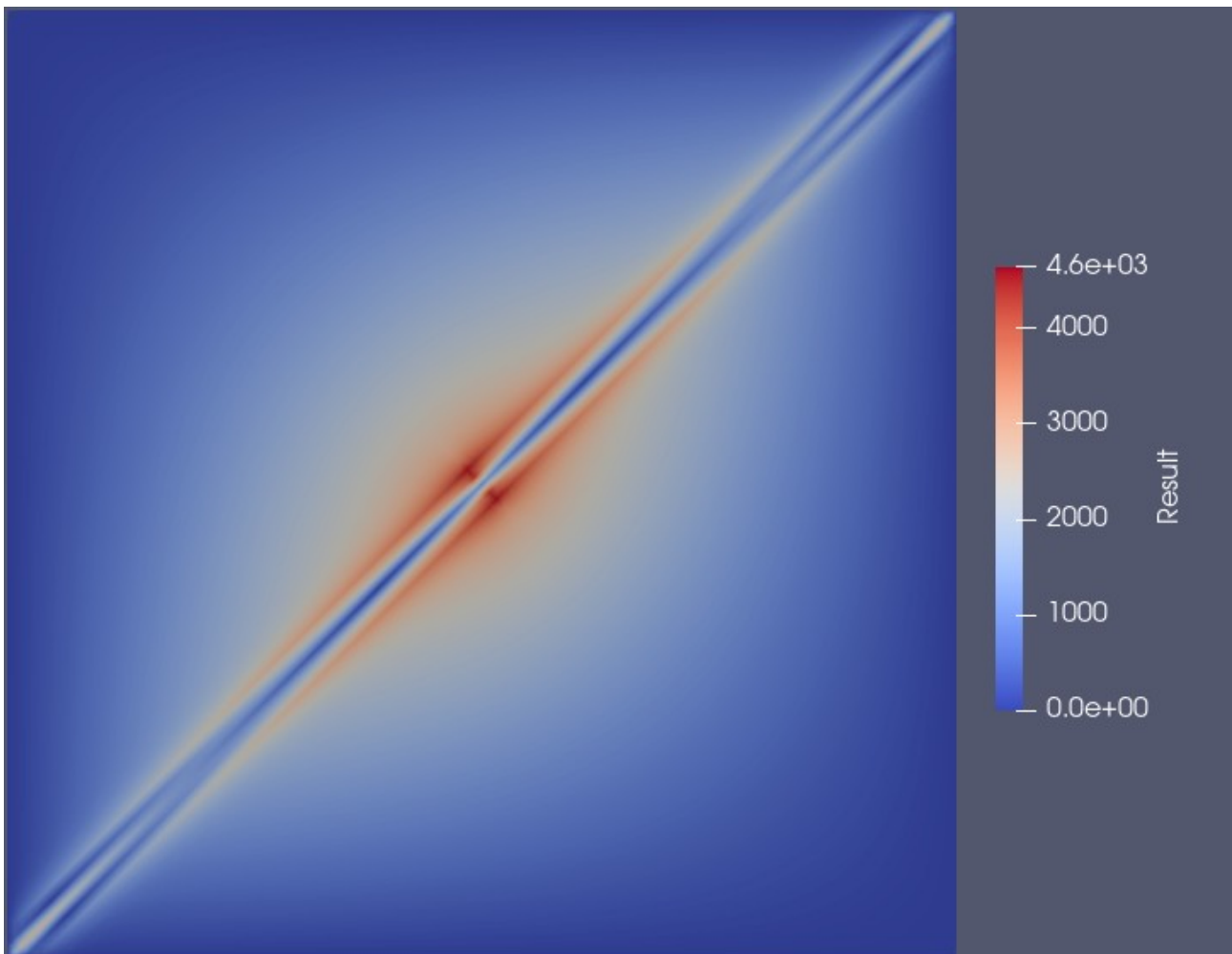
Number of cells: 4096
Number of faces: 6208
Number of edges: 2113
Number of nodes: 2113
Number of Dirichlet nodes: 128
size = 2114
Linear solver iterations: 9
#nodes = 2113
Mesh diam = 0.03125
|err|_C = 232501

```
+=====
| T_assemble = 0.182131
| T_precond  = 0.033796
| T_solve   = 0.026461
| T_IO      = 0.114315
| T_update  = 0.029039
| T_init    = 0.049601
+-----
| T_total   = 0.435503
+=====
```



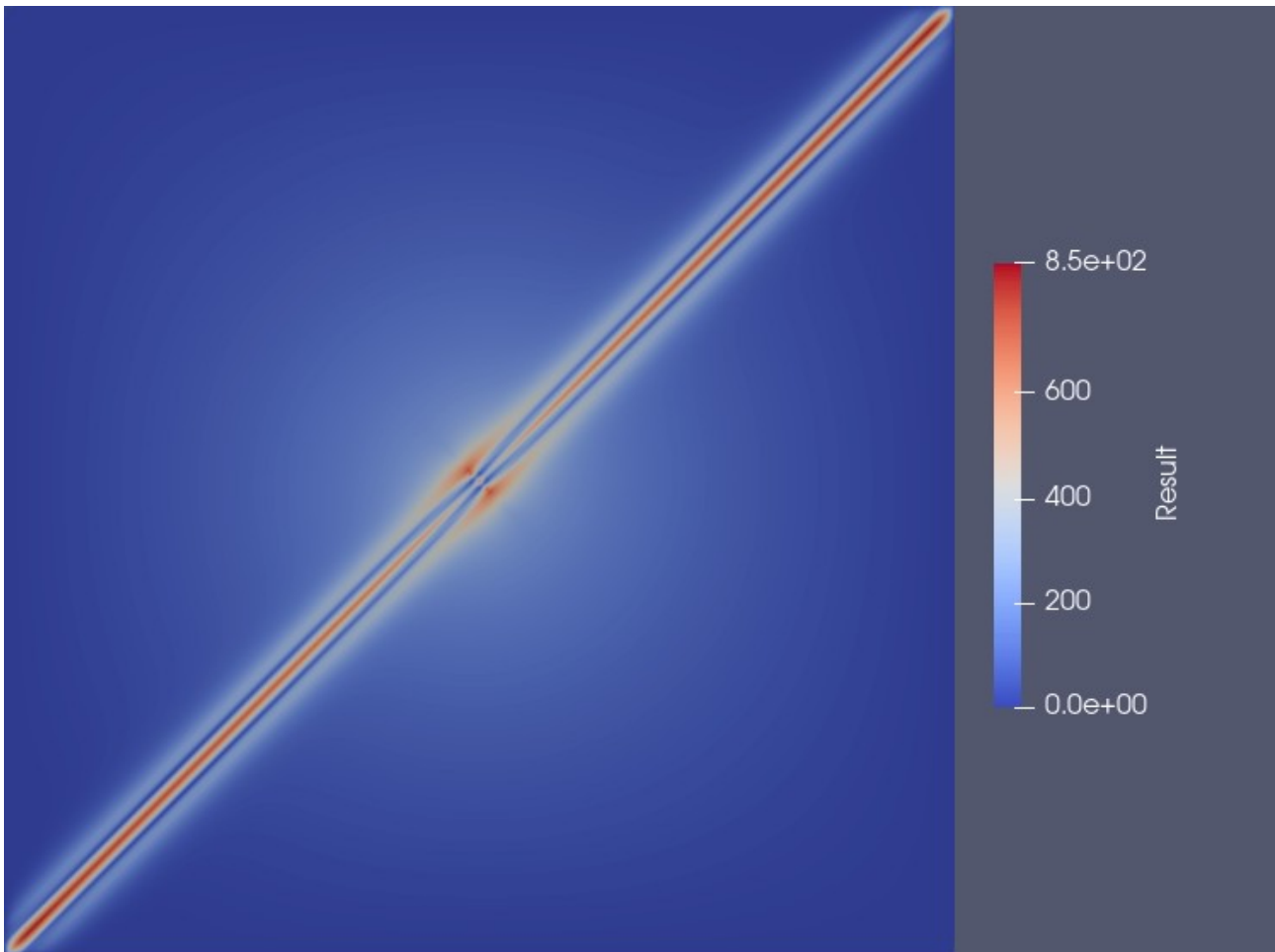
Number of cells: 16384
Number of faces: 24704
Number of edges: 8321
Number of nodes: 8321
Number of Dirichlet nodes: 256
size = 8322
Linear solver iterations: 13
#nodes = 8321
Mesh diam = 0.015625
|err|_C = 4634.89

```
+=====
| T_assemble = 0.727116
| T_precond  = 0.155525
| T_solve    = 0.155616
| T_IO       = 0.448156
| T_update   = 0.115830
| T_init     = 0.191100
+-----
| T_total    = 1.793866
+=====
```



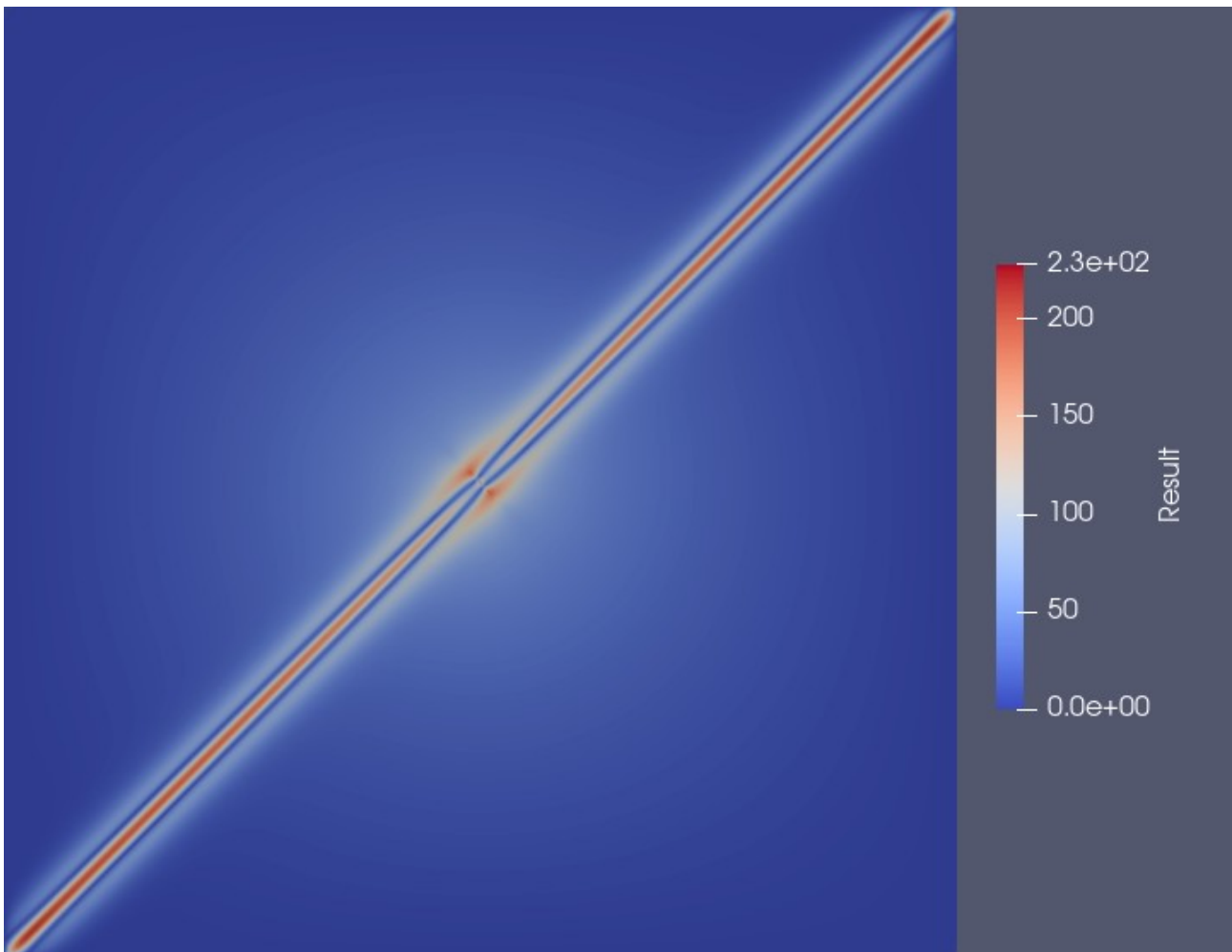
Number of cells: 65536
Number of faces: 98560
Number of edges: 33025
Number of nodes: 33025
Number of Dirichlet nodes: 512
size = 33026
Linear solver iterations: 26
#nodes = 33025
Mesh diam = 0.0078125
|err|_C = 845.689

```
+=====
| T_assemble = 2.912046
| T_precond  = 0.651769
| T_solve   = 1.258556
| T_IO      = 1.772401
| T_update  = 0.464267
| T_init    = 0.757144
+-----
| T_total   = 7.818217
+=====
```



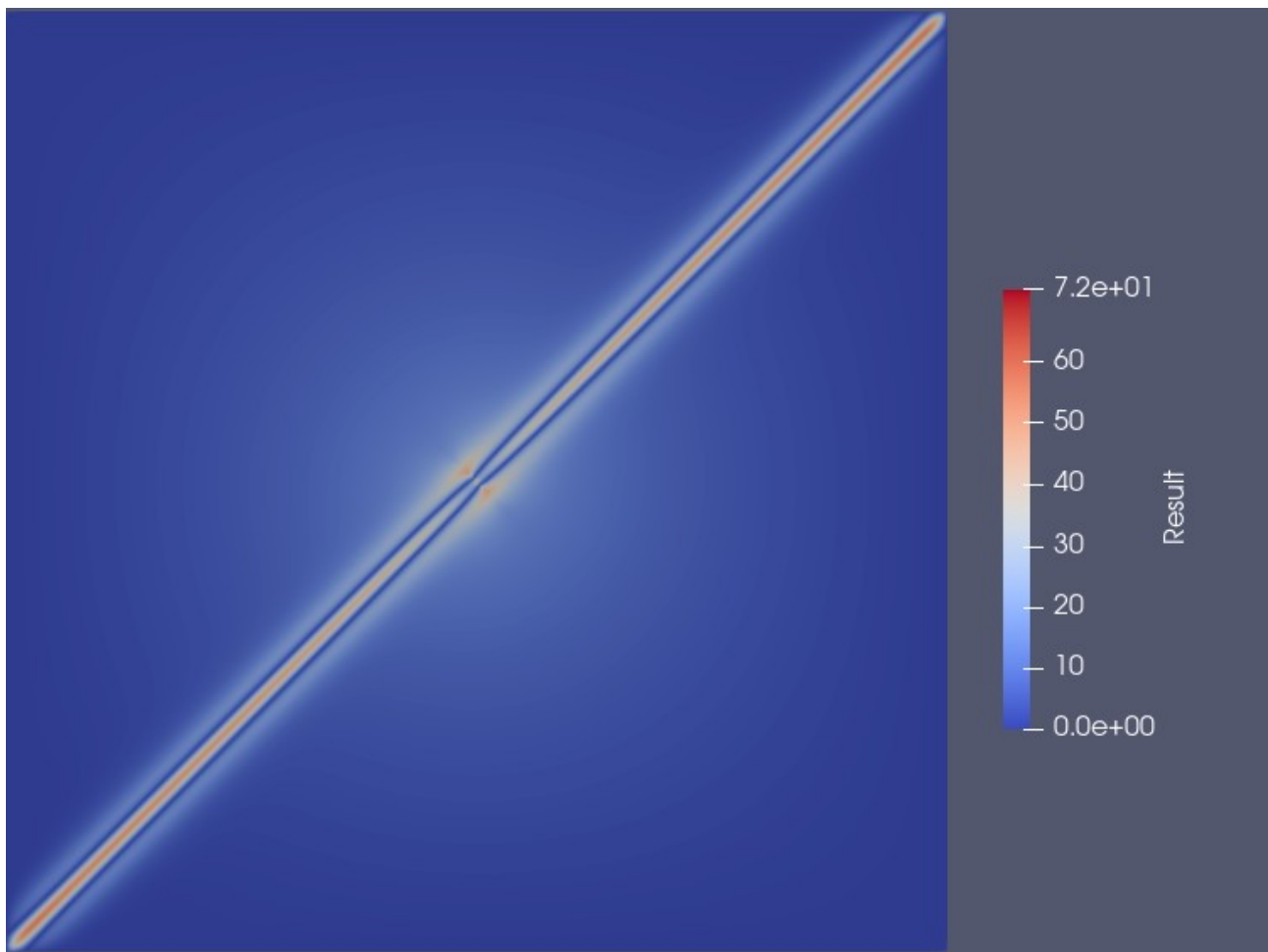
Number of cells: 262144
Number of faces: 393728
Number of edges: 131585
Number of nodes: 131585
Number of Dirichlet nodes: 1024
size = 131586
Linear solver iterations: 45
#nodes = 131585
Mesh diam = 0.00390625
|err|_C = 227.747

```
+=====
| T_assemble = 11.563826
| T_precond  = 2.707223
| T_solve   = 8.917754
| T_IO      = 7.070219
| T_update  = 1.858813
| T_init    = 2.982614
+-----
| T_total   = 35.107835
+=====
```



Number of cells: 1048576
Number of faces: 1573888
Number of edges: 525313
Number of nodes: 525313
Number of Dirichlet nodes: 2048
size = 525314
Linear solver iterations: 83
#nodes = 525313
Mesh diam = 0.00195313
|err|_C = 71.6548

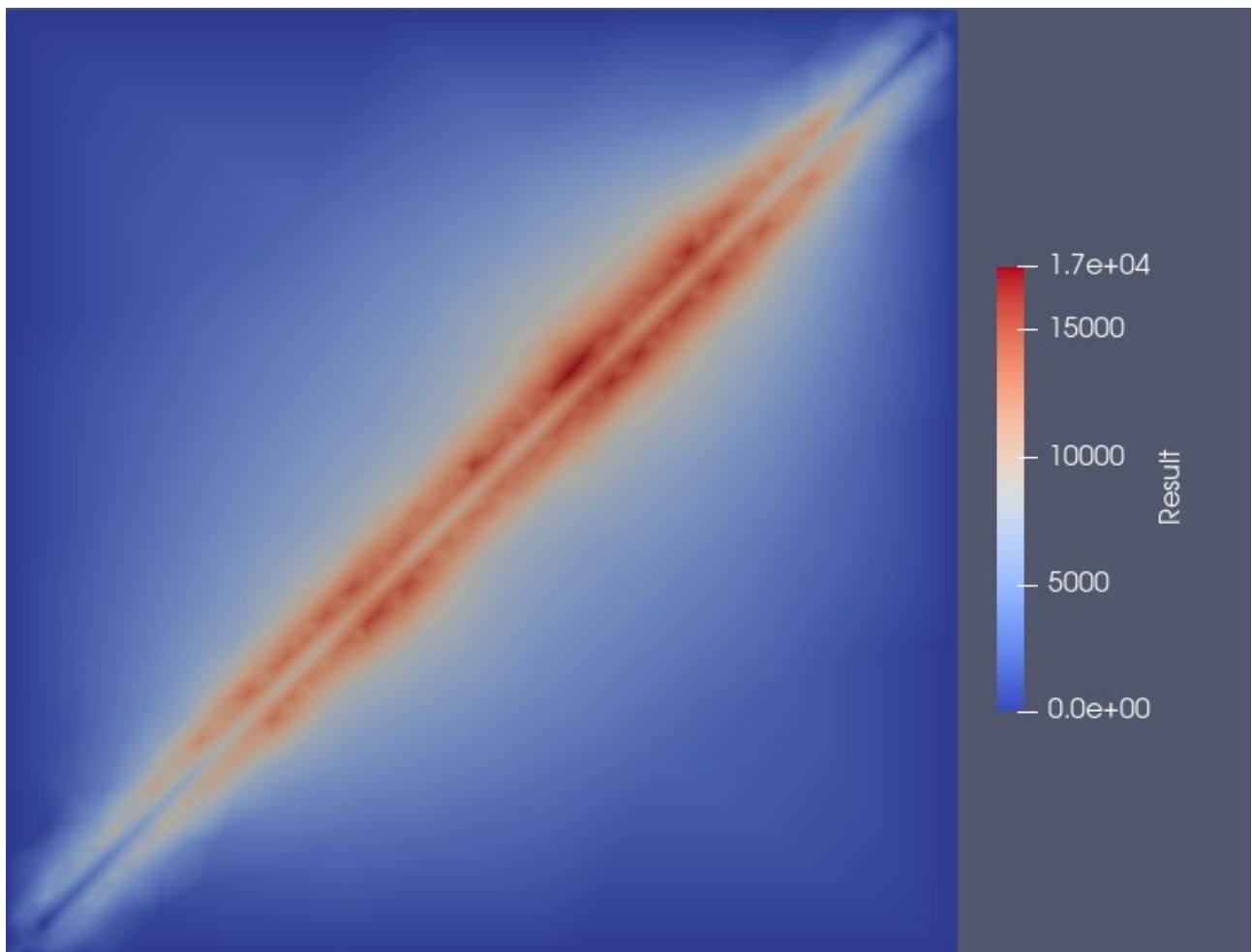
```
+=====
| T_assemble = 46.180566
| T_precond  = 10.904167
| T_solve   = 65.970639
| T_IO      = 28.089952
| T_update  = 7.437494
| T_init    = 11.983462
+-----
| T_total   = 170.600226
+=====
```



Сетка сгущающаяся к диагонали

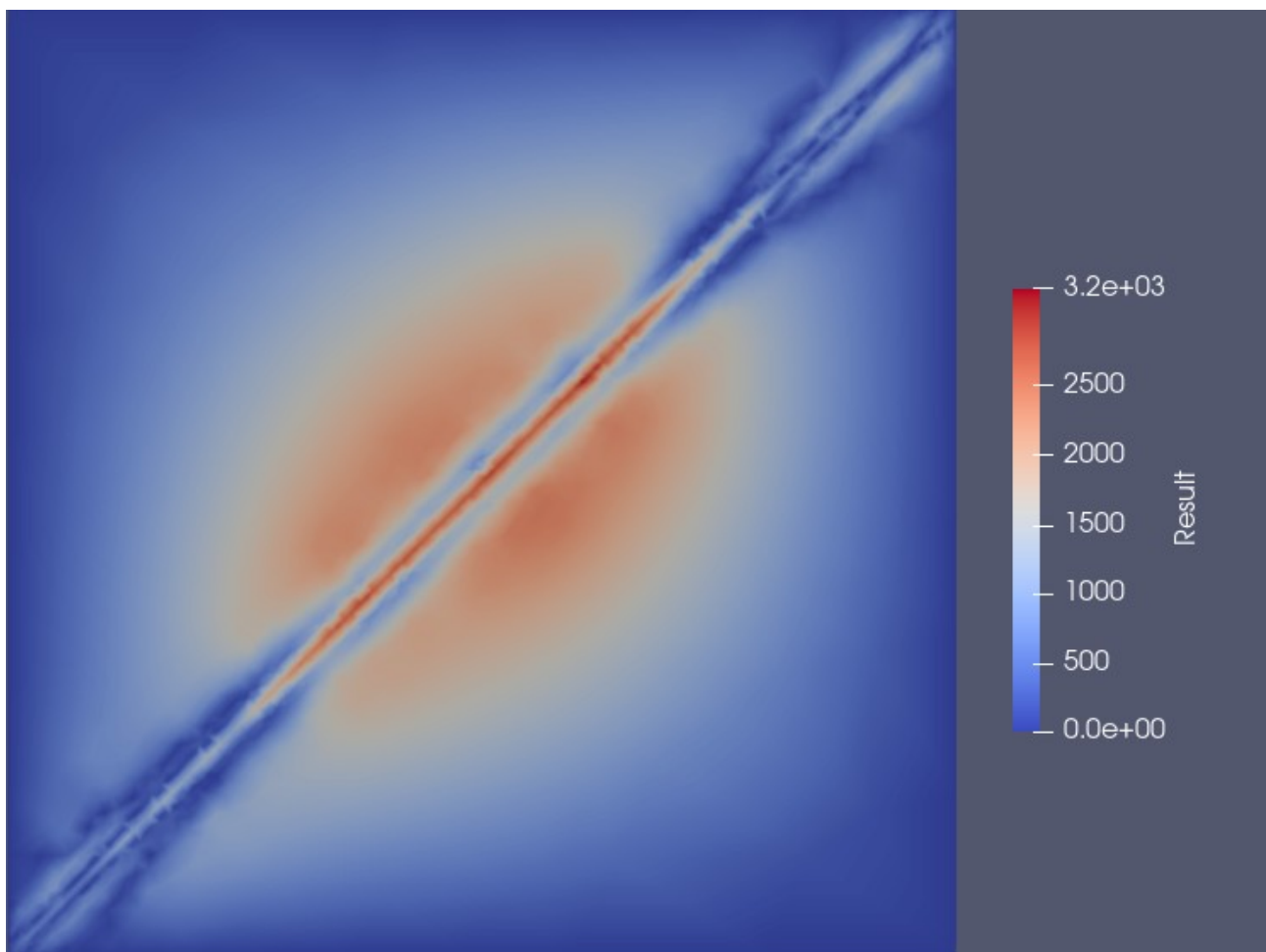
Number of cells: 1150
Number of faces: 1743
Number of edges: 594
Number of nodes: 594
Number of Dirichlet nodes: 36
size = 595
Linear solver iterations: 7
#nodes = 594
Mesh diam = 0.404072
|err|_C = 17460.8

```
+=====
| T_assemble = 0.051325
| T_precond  = 0.010157
| T_solve   = 0.005978
| T_IO      = 0.031040
| T_update  = 0.008243
| T_init    = 0.014231
+-----
| T_total   = 0.121036
+=====
```



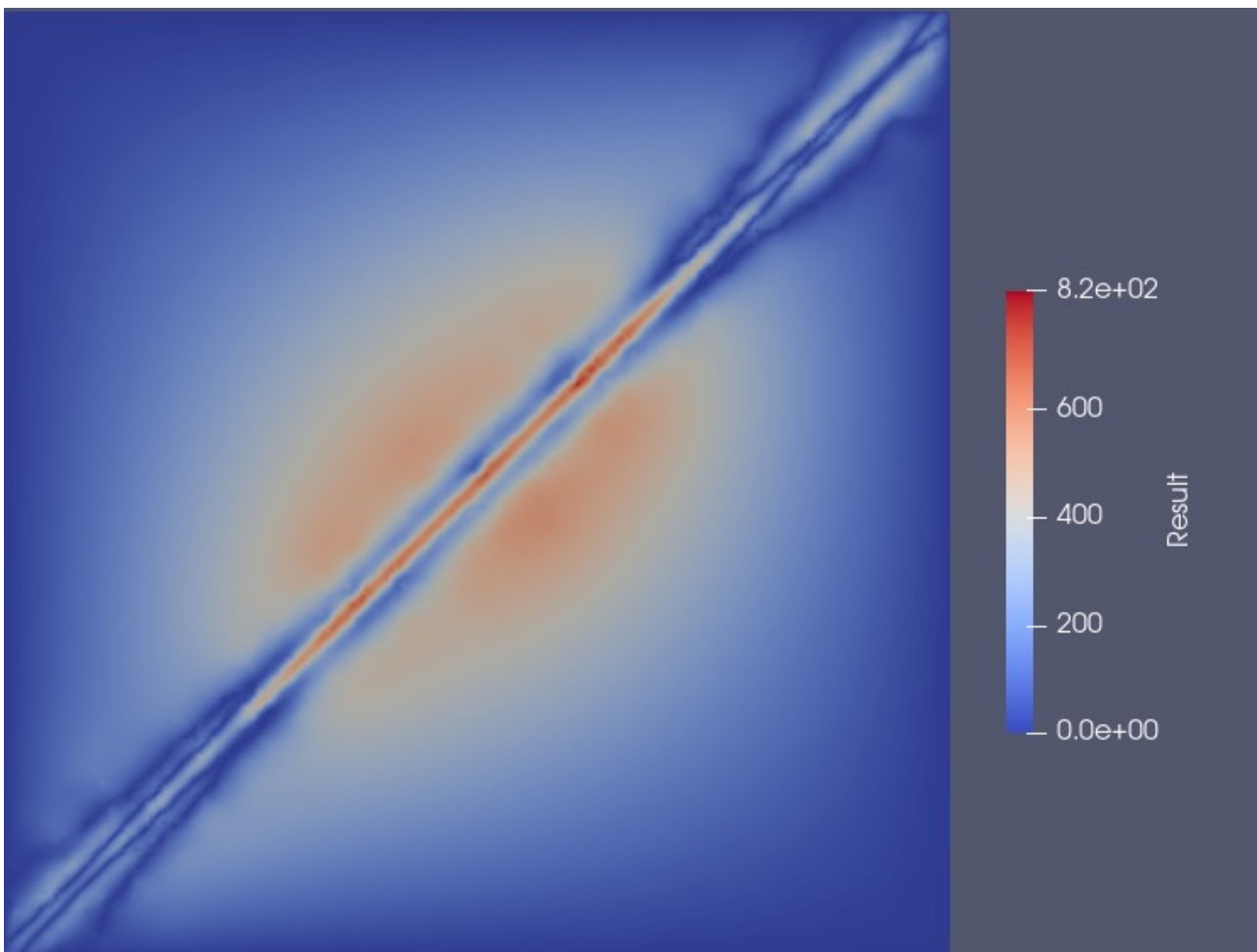
Number of cells: 4600
Number of faces: 6936
Number of edges: 2337
Number of nodes: 2337
Number of Dirichlet nodes: 72
size = 2338
Linear solver iterations: 10
#nodes = 2337
Mesh diam = 0.202036
|err|_C = 3201.52

```
+=====
| T_assemble = 0.204827
| T_precond  = 0.048013
| T_solve    = 0.035427
| T_IO       = 0.116169
| T_update   = 0.032831
| T_init     = 0.053946
+-----
| T_total    = 0.491387
+=====
```



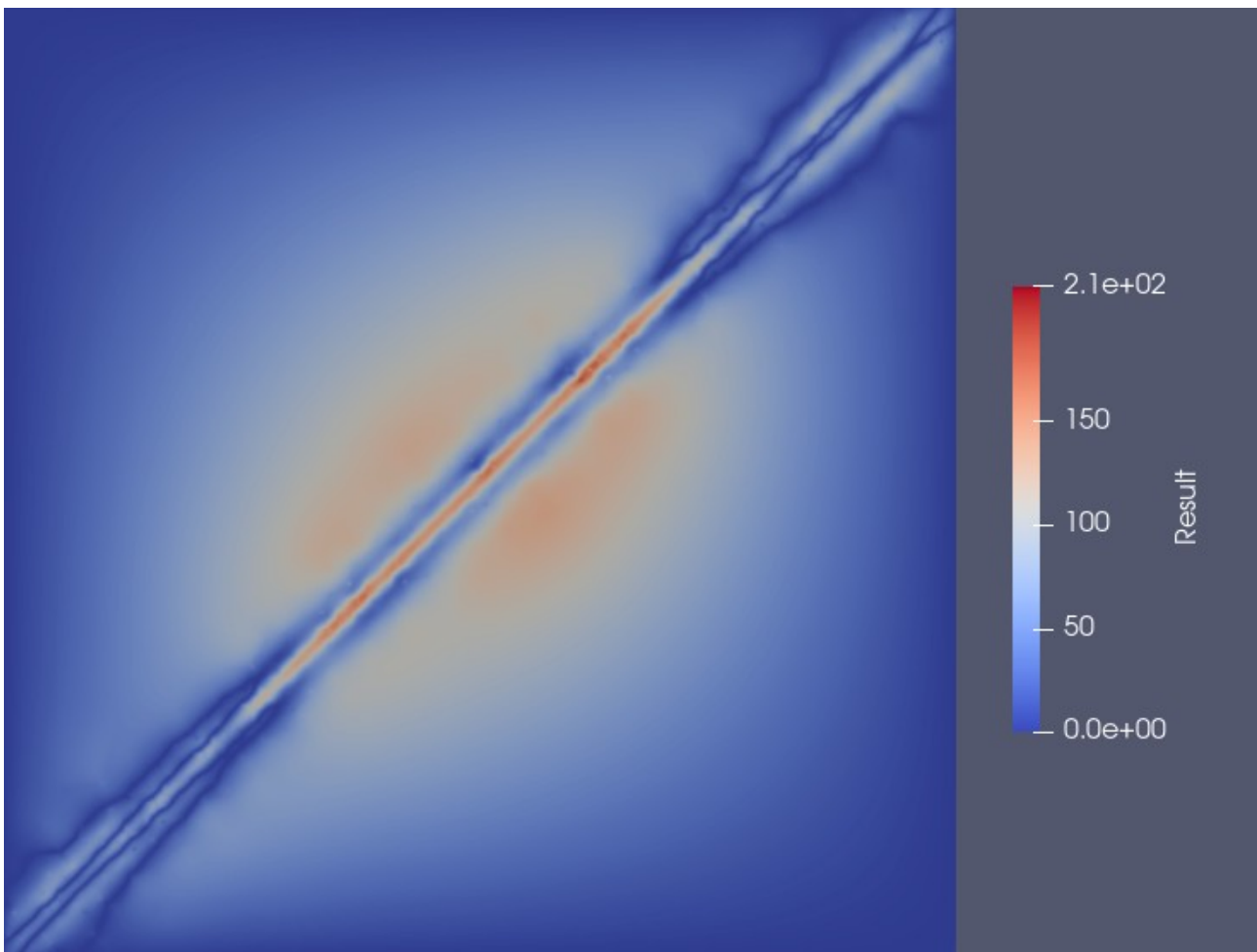
Number of cells: 18400
Number of faces: 27672
Number of edges: 9273
Number of nodes: 9273
Number of Dirichlet nodes: 144
size = 9274
Linear solver iterations: 17
#nodes = 9273
Mesh diam = 0.101018
|err|_C = 818.088

```
+=====
| T_assemble = 0.816582
| T_precond  = 0.226397
| T_solve    = 0.249357
| T_IO       = 0.447462
| T_update   = 0.131398
| T_init     = 0.211356
+-----
| T_total    = 2.083176
+=====
```



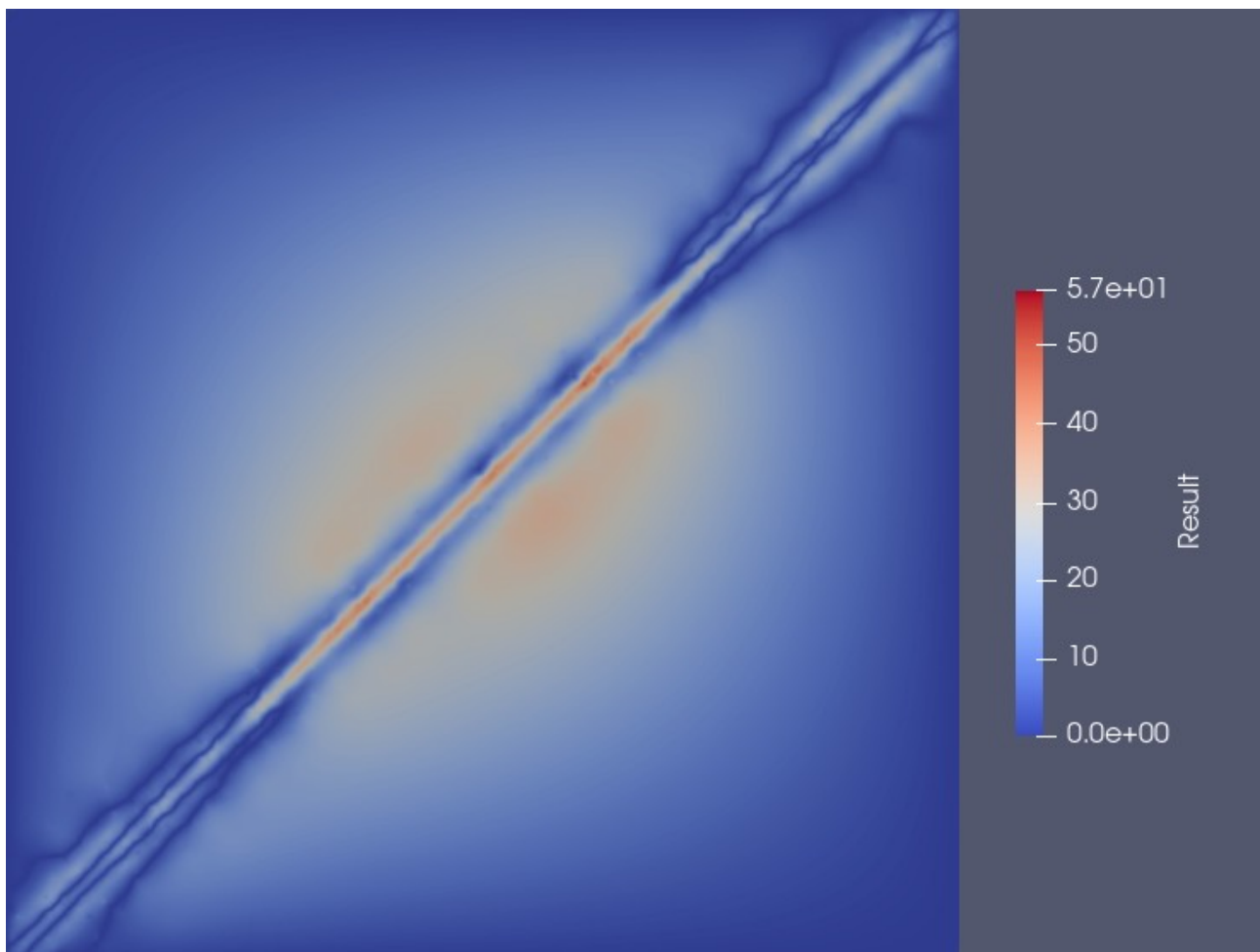
Number of cells: 73600
Number of faces: 110544
Number of edges: 36945
Number of nodes: 36945
Number of Dirichlet nodes: 288
size = 36946
Linear solver iterations: 34
#nodes = 36945
Mesh diam = 0.050509
|err|_C = 214.792

```
+=====
| T_assemble = 3.273521
| T_precond  = 0.915209
| T_solve   = 2.024477
| T_IO      = 1.761200
| T_update  = 0.526382
| T_init    = 0.824428
+-----
| T_total   = 9.327638
+=====
```



Number of cells: 294400
Number of faces: 441888
Number of edges: 147489
Number of nodes: 147489
Number of Dirichlet nodes: 576
size = 147490
Linear solver iterations: 66
#nodes = 147489
Mesh diam = 0.0252545
|err|_C = 56.9764

```
+=====
| T_assemble = 13.063365
| T_precond  = 3.590991
| T_solve   = 15.546369
| T_IO      = 6.987475
| T_update  = 2.104158
| T_init    = 3.364550
+-----
| T_total   = 44.666152
+=====
```



Number of cells: 1177600
Number of faces: 1766976
Number of edges: 589377
Number of nodes: 589377
Number of Dirichlet nodes: 1152
size = 589378
Linear solver iterations: 132
#nodes = 589377
Mesh diam = 0.0126273
|err|_C = 15.0851

```
+=====
| T_assemble = 52.041892
| T_precond  = 14.237029
| T_solve   = 123.550890
| T_IO      = 28.115484
| T_update  = 8.350287
| T_init    = 13.303340
+-----
| T_total   = 239.637625
+=====
```

