luamesh: compute and draw meshes with LuaLaTeX

Maxime Chupin <mc@melusine.eu.org>

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The package luamesh allows to compute and draw triangulation of Delaunay. The algorithm is written with lua, and depending of the choice of the "engine", the draw is done by MetaPost (with luamplib) or by tikz.

The Delaunay triangulation algorithm is the Bowyer and Watson algorithm. Several macros are provided to draw the global mesh, the set of points, a particular step of the algorithm.

1 Installation

1.1 With Linux

To install luamesh with TeXlive, you have to create the local texmf directory in your home.

```
user $> mkdir ~/texmf
```

Then we have to files to place in the correct directories. First, the luamesh.sty file must be in the directory:

~/texmf/tex/latex/luamesh/

and secondly, the luamesh.lua must be in the directory:

~/texmf/scripts/luamesh/

Once you have done this, luamesh can be included in your document with

```
\usepackage{luamesh}
```

2 The Macros

2.1 Draw a Complete Mesh

2.2 Draw the Set of Points

2.3 Draw a Step of the Bowyer and Watson Algorithm

3 Gallery of Examples