

Improving Figures using TikZ/PGF for L^AT_EX: An Introduction

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Summary

This course provides an introduction to the various features of the L^AT_EX package called TikZ/PGF, which is intended to the generation of scientific figures and drawings that are totally embedded within the document. The course is divided in two classes of two hours each.

During the first class, we present the basic structure and keywords of a tikz picture to generate basic figures such as

- Plots formed by clouds of data points with a customised legend,
- Diagrams that can describe algorithms and
- Sketches of a computational domain.

The second session is devoted to present more advanced tools and library options such as

- The *external* library to save compilation time,
- The *groupplot* library that provides advanced features for plotting a group of pictures,
- The *tikz-3dplot* package for 3D figures,
- The *pgfplotstable* package to handle external data files,
- Processes to automatize the plot structures for the display of results

Each participant is asked to bring a laptop with an up-to-date version of L^AT_EX (TeX Live 2014 recommended). Optional, participants can also bring his/her own graphics and data.

References

[1] Pgfplots manual,

<http://mirrors.ctan.org/graphics/pgf/contrib/pgfplots/doc/pgfplots.pdf>

[2] PGF Manual, <http://mirrors.ctan.org/graphics/pgf/base/doc/pgfmanual.pdf>

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Examples

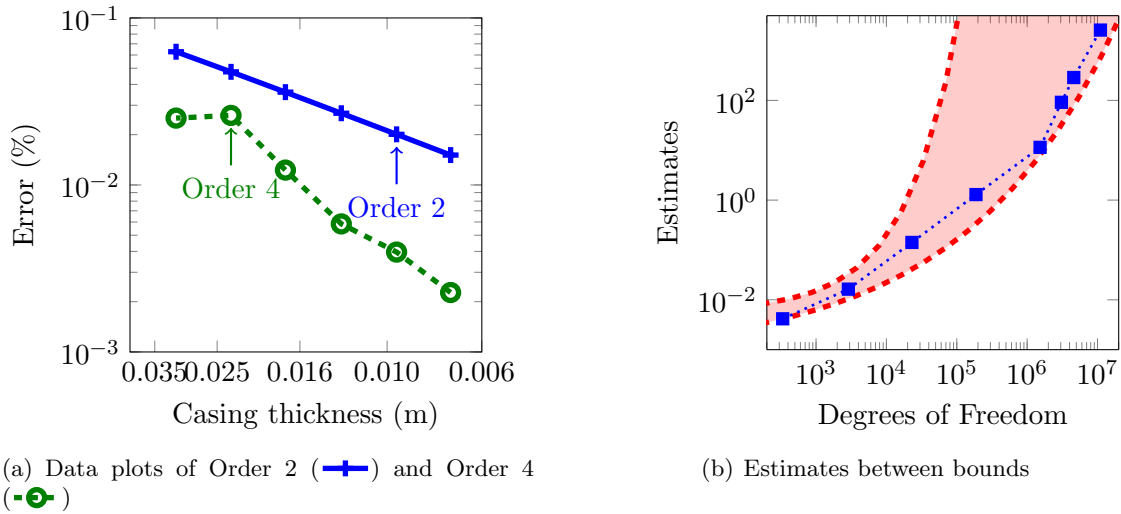


Figure 1: Examples of plot

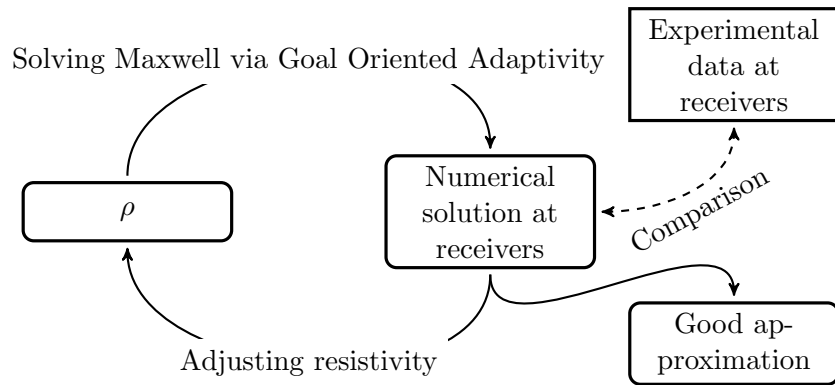


Figure 2: Algorithm related diagram

Registration

The course is scheduled to take place in Bilbao at BCAM center on May 24th and 25th of 2016, it is free of charge and open to any student and faculty member interested. To register you have to send an e-mail with your name to vincent.darrigrand@gmail.com. In order to encourage the interactions, the course is limited to 12 participants.