ETH
Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Programming Techniques II
Exercise 1

HS 15
Prof. M. Troyer

Task 1.1 Preparations

Make sure that:

- your compiler supports the C++11 features (we recommend g++-5 / clang-3.3)
- you can login to your GitLab account (gitlab.phys.ethz.ch)
- you got the exercise.tar.gz file from the TAs (if not, send an e-mail to mkoenz@phys.ethz.ch)

Task 1.2 GitLab

You will use *git* as versioning tool for your code:

- create an empty repository on your GitLab account (gitlab.phys.ethz.ch)
- clone the empty repository locally
- add your solution (see Task 3) and push it
- you will use this repository throughout the semester for your Penna implementation
- (optional) using a ssh-key pair allows you to push and pull to GitLab without having to log in repeatedly

Task 1.3 Penna

- if you do not know Penna already form PT I you can read the section "Mutation Accumulation and Penna Model" of this paper:
  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2789689/
- get familiar with the starting code, then restructure and correct it with your current coding experience
- the output of your version has to be the exact same as the starting code, given the same seed for the random number generator
- (optional) as long as you do not change the output format of the simulation, you can use `./pennaplot.py filename.txt` to plot it

Additional Notes:

Submitting the exercises is not mandatory. We will not correct the submissions directly, but use them to adapt the pacing of the lecture. If you have specific issues, ask one of the following TA during the work-section of the lecture or via e-mail:

- Mario Könz (mkoenz@phys.ethz.ch)
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