

Tutorium Effiziente Software-Entwicklung und Automatisierung auf *nix

WS 2019/2020

Prof. Dr.-Ing. Christian Hasse, Andrea Pati M.Sc., Philip Haspel M.Sc.



Prof. Dr.-Ing.
Christian Hasse

hasse@stfs.tu-darmstadt.de



Andrea Pati, M.Sc.

pati@stfs.tu-darmstadt.de



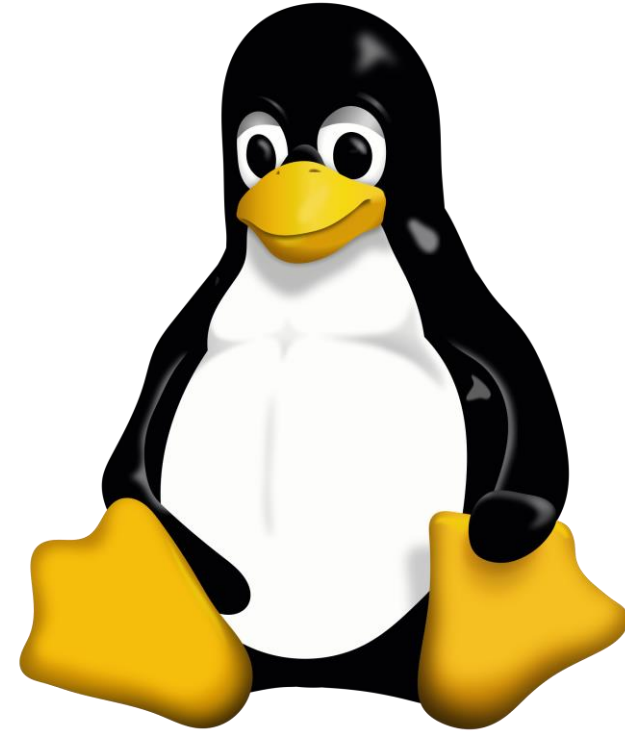
Philip Haspel, M.Sc.

haspel@stfs.tu-darmstadt.de



- ▶ Efficient software development and automatisisation on Unix/Linux
 - ▶ Shortly: SWP
-

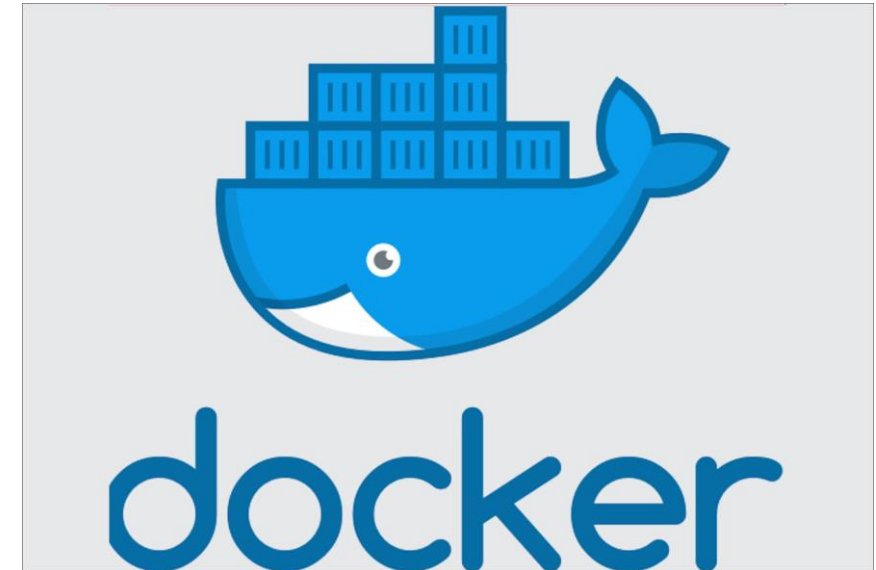
- ▶ Goal
 - ▶ Usage of *NIX system
 - ▶ Scripting and text editing
 - ▶ Code management
 - ▶ Visualization



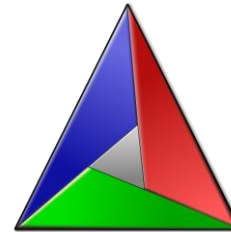
TUX
The linux mascot

- ▶ Duration:
 - ▶ From November up to end of WS
- ▶ 2h per week
 - ▶ Survey open on moodle
 - ▶ STFS meeting room
- ▶ Module subdivision:
 - ▶ Theory + live exercise session
 - ▶ 2 intermediate exercise
 - ▶ Exercise are mandatory to access exam
- ▶ Exam
 - ▶ Oral exam
 - ▶ Date for exam will be announced on moodle

- ▶ Laptop
- ▶ Docker
 - ▶ Multiplatform Container virtualizer
 - ▶ Docker container will be provided you before lessons
- ▶ In case of problem let us know in advance



- ▶ Usage of *NIX systems
 - ▶ History and architectures
 - ▶ Basic usage
- ▶ Scripting and text editor
 - ▶ Regular expression
 - ▶ VIM – interactive editor
 - ▶ SED and AWK – scriptable editor
- ▶ Code management
 - ▶ Compilation
 - ▶ Make – build manager
 - ▶ Git – version manager
- ▶ Visualization
 - ▶ Matplotlib



- ▶ Slide, exercise
 - ▶ Uploaded on moodle
 - ▶ **Make question!**
- ▶ Official software documentation
 - ▶ Includes the latest updated
 - ▶ Complete overview on software usage
- ▶ Book and literature
 - ▶ Indicated during the course
 - ▶ For in-depth studies
- ▶ Self exercise:
 - ▶ **Why I got this result?**
 - ▶ Practise
 - ▶ Is there a way to automatize it?
 - ▶ Practise again

