

Philipp Denzel

PERSONAL INFORMATION

Philipp Denzel
Breitwiesstrasse 61
CH-8135 Langnau am Albis

Date of birth: 19/08/1991
Nationality: German
Work permit: C

CONTACT INFORMATION

Institute for Computational Science
University of Zurich (Y11F96)
Winterthurerstrasse 190
CH-8057 Zürich

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INTERESTS

general relativity, cosmology, computational astrophysics, hydrodynamics simulations, molecular dynamics simulations, phase transitions and nucleation processes, computer science

EDUCATION / POSITIONS

Institut für Computergestützte Wissenschaften, Universität Zürich

PhD in Theoretical Physics (2016 - present)

- ongoing work in gravitational lensing, galactic dynamics, general relativity

MSc in Computational Science spec. Astrophysics (2015 - 2016)

- Thesis Topic: *Radiation hydrodynamics of star formation: Infrared feedback in molecular clouds*
- Supervisor: Romain Teyssier

Universität Zürich

BSc in Physics (2010 - 2014)

- Thesis Topic: *Molecular dynamics simulations of bubble nucleation*
- Supervisor: Jürg Diemand

SKILLS

Frameworks

- Strong proficiency: Python, Fortran, Java, Bash, Lisp, Git, L^AT_EX, MPI, OpenMP
- Familiarity: C, C++, Cuda, HTML 5, CSS 3, Javascript, Matlab, Mathematica
- Operating Systems: Unix, Windows, macOS

Techniques

- High performance computing, supercomputer-generated data reduction pipelining and automation, computational fluid dynamics, adaptive mesh refinement, N-body simulation, Markov chain Monte Carlo methods

Languages

- German, English (and basics in: Latin, French, Russian)

PUBLICATIONS

Molecular Dynamics Simulations of Bubble Nucleation in Dark Matter Detectors,
P. Denzel, J. Diemand, R. Angéilil, Phys. Rev. E 93, 013301, 11 January 2016

WORKSHOPS

Academia Industry Modeling Week, Universität Zürich & Eidgenössische Technische Hochschule Zürich, Zürich, November 2015
CSZ retreat, Universität Zürich & Eidgenössische Technische Hochschule Zürich, Gwatt (Thun), August 2017, Awarded 3rd place in Science Slam

TEACHING EXPERIENCE	Spring	2018	Teaching Assistant, Scientific Computing	
	Fall	2017	Teaching Assistant, Introduction to Astrophysics & Cosmology	
	Spring	2017	Teaching Assistant, Computer Simulations I	
	Fall	2016	Teaching Assistant, Computer Simulations II	
	Spring	2016	Teaching Assistant, Scientific Computing	
	Spring	2014	Teaching Assistant, Physics II, Lab work	
	Fall	2013	Teaching Assistant, Physics I, Lab work	
REFERENCES	Prof. Dr. Jürg Diemand	diemand@physik.uzh.ch	Bachelors Supervisor	
	Prof. Dr. Romain Teyssier	romain.teyssier@uzh.ch	Masters Supervisor	
	PD Dr. Prasenjit Saha	psaha@physik.uzh.ch	PhD Supervisor	
	Dr. Raymond Angélil	rangelil@physik.uzh.ch	Research colleague	