

# 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	office: (+41) 44 635 5820 mobile: (+41) 76 211 1908 <a href="mailto:phdenzel@physik.uzh.ch">phdenzel@physik.uzh.ch</a> <a href="http://www.ics.uzh.ch/~phdenzel">www.ics.uzh.ch/~phdenzel</a>
INTERESTS	general relativity, cosmology, computer science, gravitational lensing, dark matter, computational astrophysics, hydrodynamics simulations, molecular dynamics simulations, phase transitions and nucleation processes	
EDUCATION / POSITIONS	<b>Institut für Computergestützte Wissenschaften, Universität Zürich</b> PhD in Theoretical Physics (2016 - present) <ul style="list-style-type: none"><li>• ongoing work in gravitational lensing, galactic dynamics, cosmology</li></ul> MSc in Computational Science spec. Astrophysics (2015 - 2016) <ul style="list-style-type: none"><li>• Thesis Topic: <i>Radiation hydrodynamics of star formation: Infrared feedback in molecular clouds</i></li><li>• Supervisor: Romain Teyssier</li></ul> <b>Universität Zürich</b> BSc in Physics (2010 - 2014) <ul style="list-style-type: none"><li>• Thesis Topic: <i>Molecular dynamics simulations of bubble nucleation</i></li><li>• Supervisor: Jürg Diemand</li></ul>	
SKILLS	<b>Frameworks</b> <ul style="list-style-type: none"><li>• Strong proficiency: Python, Java, Shell scripting, HTML 5, CSS 3, Javascript, Git, MPI, OpenMP, L<sup>A</sup>T<sub>E</sub>X</li><li>• Familiarity: C, C++, Cuda, Fortran, Lisp, Matlab, Mathematica</li><li>• Operating Systems: Unix, Windows, macOS</li></ul> <b>Techniques</b> <ul style="list-style-type: none"><li>• Markov chain Monte Carlo methods, high performance computing, supercomputer-generated data reduction pipelining and automation, computational fluid dynamics, adaptive mesh refinement, N-body simulation</li></ul> <b>Languages</b> <ul style="list-style-type: none"><li>• German, English (and basics in: Latin, French, Russian)</li></ul>	
PUBLICATIONS	<i>Molecular Dynamics Simulations of Bubble Nucleation in Dark Matter Detectors</i> , <b>P. Denzel</b> , J. Diemand, R. Angélim, Phys. Rev. E 93, 013301, 11 January 2016	
WORKSHOPS AND CONFERENCES	<ul style="list-style-type: none"><li>• <i>Academia Industry Modeling Week</i>, Universität Zürich &amp; Eidgenössische Technische Hochschule Zürich, in Zürich, November 2015, contributed talk</li><li>• <i>Swiss Cosmology Days 2017</i>, Universität Basel, in Basel, February 6-7 2017, attended</li></ul>	

- *CSZ retreat*, Universität Zürich & Eidgenössische Technische Hochschule Zürich, in Gwatt (Thun), August 22-24 2017, contributed talk (awarded 3rd place in Science Slam competition)
- *Swiss Cosmology Days 2018*, CERN & Universität Genf, at CERN (Geneva), February 5-6 2018, contributed talk
- *EWASS 2018*, European Week of Astronomy and Space Science, in Liverpool, April 3-6 2018, contributed talk
- *The Universe as a telescope*, University of Milan, in Milan, September 3-7 2018, attended
- *49th Saas-Fee lectures*, Swiss Society for Astrophysics and Astronomy, in Saas-Fee, January 27-February 2 2019, workshop
- *Machine Learning for High Energy Physics*, Universität Zürich, in Zürich, February 4-5 2019, workshop

TEACHING EXPERIENCE	Spring	2019	Teaching Assistant, Introduction to Python II
	Fall	2018	Teaching Assistant, Introduction to Python
	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. Prasenjit Saha	psaha@physik.uzh.ch	PhD Supervisor
	Prof. Dr. Romain Teyssier	romain.teyssier@uzh.ch	Masters Supervisor
	Prof. Dr. Jürg Diemand	diemand@physik.uzh.ch	Bachelors Supervisor
	Dr. Raymond Angélil	rangelil@physik.uzh.ch	Research colleague