Curriculum Vitae

Philipp Braun

Date of Birth:	12 November 1985	**Address:**	**Phone:** +49 176 63651644
Place of Birth:	Neumarkt i.d.Opf	Marienroggenweg 51	**Email:** braunp@in.tum.de
Nationality:	German (EU citizenship)	18147 Rostock	

Education

Oct 2011 - Sep 2013 (expected) — **M.Sc., Applied & Engineering Physics** — Technische Universität München
Laurea Magistrale, Materials Science — University of Turin
Master 2, Chemistry — University of Montpellier 2
current GPA: 1.7 (German grades range from 1.0 (excellent) to 5.0 (fail))
Erasmus Mundus Master programme Materials Science Exploring Large Scale Facilities (MaMaSELF) leading to a triple degree

Oct 2009 - Sep 2012 — **B.Sc., Informatics** — Technische Universität München
Application Area: Physics
GPA: 1.8, Thesis title: "Probe position refinement in X-ray ptychography"
Advisor: Prof. Thomas Huckle (TUM Informatics), Pierre Thibault, PhD. (TUM Physics)

Oct 2008 - Sep 2011 — **B.Sc., Physics** — Technische Universität München
Specialization Area: Condensed Matter Physics
GPA: 2.2, Thesis title: "Development and analysis of a momentum spectrometer for charged particles emitted after the photo double ionization of ethyne and ethylene"
Advisor: Dr. Thorsten Weber (LBNL), Prof. Peter Müller-Buschbaum (TUM)

Apr 2006 - Mar 2008 — **Associate Engineer, Computer Systems and Automation** — Siemens Technik Akademie
GPA: 1.0 — Erlangen, Germany

May 2005 — **Abitur**, — Melanchthon Gymnasium
GPA: 1.4 — Nuremberg, Germany

Work Experience

Feb 2013 - Sep 2013 (expected) — Research Intern — cSAXS beamline, Paul Scherrer Intitute
Coherent Diffractive Imaging — Villigen, Switzerland
Masters Student. Mixed State Reconstruction with X-Ray Ptychography, Advisors: Dr. Andreas Menzel, Dr. Pierre Thibault

Jul 2012 - Sep 2012 — Research Intern — Coherent Imaging Division, CFEL, DESY
Coherent Imaging with FELs — Hamburg, Germany
Participant in the DESY Summer Programme. 3D phase retrieval algorithms. Binary classification of single-particle diffraction patterns from FELs. Advisors: Dr. Anton Barty, Prof. Henry Chapman

Jul 2011 - Sep 2011 — Research Intern — AMOS Group, Lawrence Berkeley National Laboratory
Atomic and Molecular Physics — Berkeley, U.S.
Participant in the DAAD RISE programme. Development, simulation and resolution analysis of a 3D momentum spectrometer for charged particles emitted after the photo double ionization of ethyne and ethylene. Help with setup of the experiment at beamline 10.0.1 of the Advanced Light Source. Advisor: Dr. Thorsten Weber

Oct 2008 - Nov 2009 — Software Engineer — Interasco GmbH
IT Solutions and Services — Munich, Germany
Helped defining the architecture for a newly started long term project. Developed an easy to use multithreading framework. Coached the team in using the framework and provided thorough documentation.

Apr 2008 - Oct 2008 — Junior Developer — Swinton Collonade Ltd.
Insurance and Financial Services — Manchester, U.K.
Developed enterprise scale object oriented web applications. Developed website frontend with javascript, DHTML, webservices. Monitored website performance and troubleshot defects out of regular working hours.

Oct 2007 - Mar 2008 — Software Developer Intern — Siemens Standard Drives
Manufacturing & Automation — Congleton, U.K.
Developed an application to streamline tracking of defective circuit boards and increase item throughput in the adjoining factory. Developed an application to automate a small assembly line.

Computer Skills

Programming:	web pages (Expert),Windows applications (Expert), Qt (Basic) Database Design (Expert)
Programming Languages:	C# (Expert), Visual Basic (Expert), C/C++ (Expert) SML (Intermediate), SQL (Intermediate), Perl (Basic), HTML (Intermediate), Python (Intermediate)
Computer Algebra Programs:	Mathematica (Intermediate)
Operating Systems:	Windows (Expert), Linux (Intermediate)
Office:	LaTeX, Office-Suite

Lab experience

Basic lab course 1	- Oscillations and chaos - Capillary viscosimeter - Determination of molar mass - Constitutive equation of real gases - Determination of sonic velocity - Dissociation and freezing point depression of KNO_3
Basic lab course 2	- Determination of electron charge - Bridge circuit - Creation of ultra high vacuum, measurement of vacuum pressure - Measurement of transmission curves on the oscilloscope - Characteristic lines of transistors - fuel cell characteristics
Basic lab course 3	- measurement and handling of radioactive materials - measurement of electromagnetic fields - diffraction and refraction of light - X-rays: characteristic and continuous spectrum, generation - geometrical optics: lenses, lense systems, principal plane, autocollimation, focal distance - Franck-Hertz-Experiment
Advanced lab course	- x-ray fluorescence spectrometry - atomic force microscopy - molecular motors. fluorescence microscopy - plasma interferometry, He-Ne lasers, laser resonator, Fabry-Perot-interferometer - organic photovoltaic cells - surface plasmons - Mössbauer Effect - Lasers and nonlinear optics - Fourier transform holography
Bachelor Thesis	- synchrotron radiation - 3rd generation synchrotrons

Military Service

Jul 2005 - Mar 2006	Private First class at German Airforce, Landsberg a. Lech *Air raid defences*

Languages

English:	Fluent
Spanish:	C1 Level
Italian:	A2 Level
French:	A1 Level

Interests and Activities

Technology, Philosophy of Science, University Choir, Programming, Travelling