Claire Prouve

Personal Data

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	France		
Date of birth:	16 March 1987	**Nationality:**	German, French

Education

04/2012 - present   M.Sc. WITH SPECIALISATION IN EXPERIMENTAL PARTICLE PHYSICS
RWTH Aachen University - one of nine German Universities of Excellence
(current grade 1.9 On a scale of 1 to 6, with 1 being the best grade.)

09/2010 - 08/2011   ERASMUS EXCHANGE PROGRAMME
Université Paris Sud, accepted for the highly competitive second year
master's programme NPAC (Nuclear physics, Particle physics, Astronomy
and Cosmology)

10/2006 - 04/2012   B.Sc.IN PHYSICS WITH COMPUTER SCIENCE AS SUBSIDIARY SUBJECT
RWTH Aachen University   *(grade 2.0)*

09/1997 - 08/2006   ABITUR WITH SPECIALISATION IN MATHEMATICS AND PHYSICS
Gymnasium Horkesgath   *(grade 2.0)*
Awarded with the **Deutsche Physikalische Gesellschaft Abiturpreis** -
German physics society prize for exceptional achievements in physics.

Research Projects

06/2012 - present   MASTER'S THESIS
*Optimisation on the measurement of the $B_d \to K^{0*}e^+e^-$ branching fraction
at LHCb*
with Dr. M.H. Schune at the LAL, Paris
Analysis of the $B_d \to K^{0*}e^+e^-$ decay channel which is particularly sensitive
to effects of physics "Beyond the Standard Model" by measuring the
polarisation of the virtual photon. Evaluating the reconstruction of the
soft final state electrons, in particular studying the emission of
bremsstrahlung by the electrons. The aim is to perform a branching ration
measurement on the 2011 and 2012 LHCb data.

05/2011 - 07/2011   INTERNSHIP
*Study on the measurement of the CKM angle γ at LHCb using untagged
$B_s \to D^0\Phi$ events*
with Dr. M.H. Schune at the LAL, Paris
Optimisation of the selection for the $B_s \to D^0\Phi$ decay using both
simulation and data. Selection applied to 135 pb^{-1} 2010/ 2011 data
collected by LHCb. No evidence of a signal could be found with this
level of statistics.

07/2011 - 09/2011	BACHELOR'S THESIS
	Parametrisation of rigid body dynamics in quaternions
	with Prof. R. Schmitz at the Institute for theoretical solid state physics (Theory C), RWTH Aachen
	Study using abstract algebra, quaternion mathematics and rigid body dynamics to evaluate a novel parametrisation of the equations of motion of a rigid body. Deriving the kinematic quantities using quaternions and expressing the Euler equations of rigid body dynamics in quaternion form.
04/2008 - 08/2008	UNDERGRADUATE PROJECT
	Selected for participation in the radiation therapy research project of the III. Physics Institute B - beyond the standard curriculum. Hardware close programming and calibration of a Charge to Digital Converter (QDC).

▬▬▬▬▬▬ Presentations

19/10/2012	BREMSSTRAHLUNG STUDY ON THE $B_d \to eeK^*$
	LHCb *Calo Object Tools* group meeting
14/09/2012	RESULTS OF THE NEW DIELECTRONMAKER ON THE $B_d \to eeK^*$ AND $B_d \to J\Psi K^*$
	LHCb *Calo Object Tools* group meeting
07/06/2011	STUDY ON THE MEASUREMENT OF THE CKM ANGLE γ AT LHCB USING UNTAGGED $B_s \to D^0\Phi$ EVENTS
	LHCb group meeting Laboratoire de l'Accélérateur Linéaire, Paris
18/05/2011	ANALYIS OF THE $B_s \to D^0\Phi$
	LHCb *Determination of γ from $B_d^0 \to D^0K^{*0}$* microgroup meeting

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10/2011 - 09/2012	TANDEM MENTORING PROGRAMM, RWTH AACHEN
	Mentoring programme for talented female students and Ph.D. students. Participation in serveal trainings aiming at enlarging professional competences and developing key qualifications. Dr. Tatsuya Nakada as a personal mentor.
7-14/07/2011	TRANS-EUROPEAN SCHOOL OF HIGH ENERGY PHYSICS
18-19/11/2008	TRAINING FOR ROBERTA® WOKSHOP -LEADERS
	Acquirement of certificate qualifying me to conduct Roberta® workshops and trainings europe-wide.

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10/2011 - 03/2012	PROGRAMMING FOR EVERYBODY - AN INTRODUCTION INTO JAVA
	9. Institute for Computer Science - Learning Technologies Research Group
07/2009 - 09/2009	PRACTIAL COURSE IN PHYSICS
	I. Physics Institute B, RWTH Aachen
10/2008 - 03/2009	THEORETICAL ELECTRODYNAMICS
	Institute for theoretical solid state physics (Theory C), RWTH Aachen
04/2008 - 09/2008	PRACTICAL COURSE IN PHYSICS FOR STUDENTS WITH PHYSICS AS SUBSIDIARY SUBJECT
	I. Physics Institute A, RWTH Aachen
10/2007 - 03/2008	PROGRAMMING FOR EVERYBODY - AN INTRODUCTION INTO JAVA
	9. Institute for Computer Science - Learning Technologies Research Group

Outreach

2008 - present	**WORKSHOP LEADER FOR ROBERTA® COURSES** Planning, organisation and execution of workshops to inspire girls to take an interest in working with modern technologies, awake interest in innovative developments in computer science and provide confidence in their technical skills.
2-4/12/2011	**MINT 400 IN BERLIN** Organisation and realisation of the 5th MINT (Mathematics, Informatics, Natural science, Technology) event, amongst others as exhibition supervisor and workshop leader. The MINT event is a three day seminar for 400 pupils from 147 schools to gain close insight into the MINT working fields and to illustrate the importance of the MINT subjects for our society.
2010/ 2011	**GIRLSDAY RWTH AACHEN** Organisation and realisation of the annual RWTH Aachen Girlsday.

Skills

Language skills	Fluent in German, English and French
Computing skills	C++, ROOT, python, JAVA, Geant4 and basic use of LHCb software

References

DR. M. H. SCHUNE
LAL, Paris
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PROF. DR. R. SCHMITZ
Institute for theoretical solid state physics (Theory C), RWTH Aachen
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PROF. DR. U. SCHROEDER
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