

# Ramon Winterhalder

INSTITUTE FOR THEORETICAL PHYSICS · HEIDELBERG UNIVERSITY

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## Education

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### Heidelberg University

PHD IN PHYSICS

Heidelberg

Oct. 2017 - Nov. 2020

- Title: How to GAN - Novel simulation methods for the LHC
- Supervisor: Tilman Plehn

### University of Freiburg

MSC IN PHYSICS

Freiburg

Oct. 2014 - Sep. 2017

- Title: Approximations for vector-boson scattering at the LHC
- Supervisor: Stefan Dittmaier

### Imperial College London

IMPERIAL COLLEGE INTERNATIONAL DIPLOMA

London

Oct. 2015 - Jul. 2016

- Attended courses of the MSc in Quantum Fields and Fundamental Forces
- Awarded the IMPERIAL COLLEGE INTERNATIONAL DIPLOMA in Physics

### University of Freiburg

BSc IN PHYSICS

Freiburg

Oct. 2011 - Sep. 2014

- Title: Photon induced top quark pair production and dijet production at the LHC
- Supervisor: Stefan Dittmaier

## Experience

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### TEACHING

#### Heidelberg University

TEACHING ASSISTANT

Heidelberg

Oct. 2017 - Present

- Theoretical Physics I - Tutor (2017)
- Theoretical Physics I - Head tutor, preparation of exercise sheets and master solutions (2018)

#### University of Freiburg

TEACHING ASSISTANT

Freiburg

Oct. 2013 - Jul. 2017

- Experimental Physics I - Tutor (2013-2014, 2016-2017)
- Experimental Physics II - Tutor (2015, 2017)

### PROFESSIONAL

#### DILAS Diodenlaser GmbH

STUDENT EMPLOYEE

Freiburg

Sep. 2014 - Jul. 2017

- Electro-optical characterization of high-power diode lasers including near field and  $M^2$  measurements
- Component characterization of tapered amplifiers

#### Leibniz Institute for Solar Physics

RESEARCH TRAINEE

Freiburg

Jul. 2013 - Oct. 2013

- Improvement of the Fourier-Hankel technique which is used to analyze the seismic wave field on the sun
- Supervisor: Markus Roth

#### Semiconductor Systems GmbH

TRAINEE AND STUDENT EMPLOYEE

Hinterzarten

Mar. 2011 - Apr. 2013

- Design of a new company website using Joomla
- Project manager for the development and introduction of a newly programmed CRM and ERP software
- Assistance in the setup and introduction of a quality management system

## Awards

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2017	<b>IMPRS-PTFS</b> , PhD fellowship of the INTERNATIONAL MAX PLANCK RESEARCH SCHOOL	Heidelberg
2015	<b>Erasmus</b> , Erasmus scholarship for one year at Imperial College London	London
2014 - 2016	<b>Deutschlandstipendium</b> , Scholarship awarded annually to high-achieving students	Freiburg

## Talks & Schools

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2020	<b>ML4Jets</b> , Workshop	New York
2020	<b>CRC Meeting</b> , Parallel Session	Heidelberg
2019	<b>University of Freiburg</b> , Invited Talk	Freiburg
2019	<b>ABHM Research Group Meeting</b> , ABHM = Aachen, Bonn, Heidelberg, Mainz	Bonn
2018	<b>TASI 2018</b> , Summer School	Boulder
2017	<b>ITP Heidelberg</b> , Group Seminar	Heidelberg
2017	<b>Higgs Couplings</b> , Parallel Session	Heidelberg

## Skills

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<b>Languages</b>	German (native), English (C1 level), Swedish (A2 level), Latin (intermediate Latin certificate)
<b>Programming</b>	C/C++, Python
<b>Web</b>	HTML5, CSS, Joomla, Typo3
<b>Frameworks &amp; Tools</b>	TensorFlow, Keras, PyTorch, MadGraph, ROOT, Mathematica

## References

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### Tilman Plehn

Heidelberg University  
✉ plehn@uni-heidelberg.de

### Anja Butter

Heidelberg University  
✉ butter@thphys.uni-heidelberg.de

### Stefan Dittmaier

University of Freiburg  
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