



# Curriculum Vitae

## Personal Data

### Principal Residence

Dipl.-Ing. Martin Napetschnig, MSc BSc  
Amselweg 4  
9100 Völkermarkt

### Secondary Residence

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Date of Birth 28<sup>th</sup> March, 1993 in Bad Eisenkappel

Web [martinnapetschnig.com](http://martinnapetschnig.com)

Linkedin [www.linkedin.com/in/martin-napetschnig-4b554320a](http://www.linkedin.com/in/martin-napetschnig-4b554320a)

XING [www.xing.com/profile/Martin\\_Napetschnig4/cv](http://www.xing.com/profile/Martin_Napetschnig4/cv)

## Education

18<sup>th</sup> of June 2012 Matura passed with distinction.

09/2004 – 06/2012 Alpen-Adria-Gymnasium (high school) in Völkermarkt.

09/2000 – 07/2004 Volksschule (elementary school) in Völkermarkt.

## Academic Career

Since December 1<sup>st</sup> 2021 Doctoral student at the Technical University of Munich. Research in the field of *Physics of the Early Universe* in the group of Dr. Julia Harz.

02/2018 – 11/2020 NAWI-Graz master study programme "Technical Physics" in cooperation with the Karl - Franzens - University of Graz and the Graz University of Technology, passed with distinction.

Specialisation in the branches "Semiconductor Devices", "Electron Microscopy" and "Laboratory Technology".

Title of master thesis (supervised by Prof. Dr. Peter Knoll & Dr. Jan Ihle):

"Optimisation of NTC ceramics containing iron".

04/2017 – 09/2020 Master study programme "Physics" at the Karl - Franzens - University of Graz, passed with distinction. Specialisation in theoretical physics.

Topic of Master thesis (supervised by Dr. Markus Huber and Prof. Dr. Reinhard Alkofer):

"Yang-Mills correlation functions in linear covariant gauges from Nielsen identities".

03/2013 – 04/2017 Bachelor study programme "physics" in cooperation with the Karl - Franzens - University of Graz and the Graz University of Technology, passed with distinction.

Topic of Bachelor thesis (supervised by Dr. Markus Huber):

"On the gauge dependence of Yang-Mills propagators in linear covariant gauges in three dimensions".

[02/2016 – 06/2016] Semester abroad in Bologna, Italy at the "Università degli Studi". Performance of courses regarding theoretical physics.

## Professional Experience

October 1<sup>st</sup>, 2021 - November 30<sup>th</sup>, 2021

Calltaker for the COVID-19 hotline at the Austrian Red Cross in Strassgang, Graz.

September 15<sup>th</sup>, 2021 - September 20<sup>th</sup>, 2021

Product Specialist in the field of Atomic Force Microscopy (AFM) at Anton Paar GmbH in Graz.

September 8<sup>th</sup>, 2021 - September 13<sup>th</sup>, 2021

Calltaker for the COVID-19 hotline at the Austrian Red Cross in Strassgang, Graz.

November 12<sup>th</sup>, 2020 – July 31<sup>st</sup>, 2021

Calltaker for the COVID-19 hotline at the Austrian Red Cross in Strassgang, Graz.

July 15<sup>th</sup>, 2020 – September 30<sup>th</sup>, 2020

Summer internship at the Institute of Science and Technology (IST Austria) in Maria Gugging. Research project in the group of Prof. Stefan Freunberger in the field of "Materials Electrochemistry".

April 1<sup>st</sup>, 2018 – October 31<sup>st</sup>, 2018

Cooperation in the department for Research and Development of NTC temperature and pressure sensors at TDK Electronics in Deutschlandsberg (former TDK EPCOS) in the course of the master thesis 'Optimisation of NTC ceramics containing iron'.

July 1<sup>st</sup>, 2017 – March 31<sup>st</sup>, 2018

Part - time job at TDK EPCOS in Deutschlandsberg in the laboratory for chemical analysis.  
(Functions: X - ray fluorescence spectroscopy (XRF), Simultaneous Thermal Analysis (STA), Measurements on grain size & specific surface area (SSA), loss on ignition & humidity.)

July 4<sup>th</sup>, 2016 – September 30<sup>th</sup>, 2016

Internship at TDK EPCOS in Deutschlandsberg in the laboratory for chemical analysis.  
(Functions: Simultaneous Thermal Analysis (STA), Measurements on grain size, loss on ignition & humidity.)

July 6<sup>th</sup>, 2015 – August 31<sup>st</sup>, 2015

Internship at TDK EPCOS in Deutschlandsberg in the laboratory for chemical analysis (functions: Scanning Electron Microscopy (SEM) & Simultaneous Thermal Analysis (STA).)

July 21<sup>st</sup>, 2014 – September 12<sup>th</sup> 2014

Internship at CERN for the Institute for High Energy Physics Vienna (HEPHY) of the Austrian Academy of Sciences (ÖAW). Functions: programming software regarding the trigger upgrade.

July 9<sup>th</sup>, 2012 – January 8<sup>th</sup>, 2013

Military service at "Pionierbatallion 1" in Villach.

Vacation Job      During the summer months between 2009-2011 and from July, 2013 - September, 2013 at the "Strandhotel Seewirt" in Sankt Kanzian am Klopeinersee.

## Publications

Preprint      M. Napetschnig, M.Q. Huber, R. Alkofer and J.M. Pawłowski  
*Yang-Mills correlation functions in linear covariant gauges from Nielsen identities* [[Phys. Rev. D 104](#), [arXiv:2106.12559](#)]

## Programming Skills

Advanced level:    Matlab, Mathematica, C, C++, Python, Julia.

Basic knowledge: HTML, Visual Basic, R, LabView, Arduino, Assembler.

## Language Skills

German (mother tongue)

English (fluent oral and written command)

Italian (advanced)

Spanish (basic knowledge)

## Teaching

Winter term 2019/20: Tutor in exercises on classical mechanics and classical electrodynamics.

Spring term 2018/19: Tutor in exercises in quantum mechanics.

Winter term 2017/18: Tutor in exercises on classical mechanics.

## Physics competitions

2021: Participation at the 36 hour online 'Physics League Across Numerous Countries for Kick-ass Students' (PLANCKS) competition with the team 'DerAlteKannsNichtLassen' (final rank: 13 out of 50 teams worldwide) after finishing second in the Austrian online pre-selection

2020: Participation at the first online PLANCKS competition with the team 'DerAlteKannsNichtLassen' after winning the Austrian pre-selection in Graz.

2019: Participation at the Austrian PLANCKS pre-selection in Linz with 'DerAlteKannsNichtLassen'.

2018: Participation at the international PLANCKS competition in Zagreb, Croatia, after winning the Austrian pre-selection in Vienna with 'DerAlteKannsNichtLassen'.

2017: Participation at the Austrian pre-selection for PLANCKS in Vienna with the team 'Die Erhaltungsgrößen'.

## **Driving Licences**

Since May 10<sup>th</sup>, 2011 A, BE, CE, F

Since June 6<sup>th</sup>, 2010 B

## **Interests & Hobbies**

Head of the local chess club in Völkermarkt.

Völkermarkt, Tuesday 30<sup>th</sup> November, 2021