

# Dirk Hornung, Ph.D.

**City:** Barcelona  
**Date of birth:** 5th of October, 1991  
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## Professional Experience

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2004 - present	<b>Serious Entrepreneur</b> Hornung Webdesign, Eevents, Fulda Strategy Group Gbr, FuldaCity, WeGoLoco, 17
Mai 2019 - January 2019	<b>CYSAE</b> <i>CTO</i> Utility Token for Cuatre Casas, Certifying documents with the help of Ethereum, Enterprise Democracy on Chain
October 2017 - April 2019	<b>Alda</b> <i>CTO &amp; Co-Founder</i> Fintech Chatbot helping Millenials in Financial Education

## Education

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2015 - 2019	Ph.D., Theoretical Physics, Autonomous University of Barcelona (Spain) Thesis: The QCD Strong Coupling from Hadronic Tau Decays Supervisor: Dr. Matthias Jamin
2014 - 2015	M.Sc., Particle Physics, Autonomous University of Barcelona (Spain) Thesis: 1-Loop Anomalous Dimensions of 4-Quark Operators Supervisor: Dr. Matthias Jamin
2011 - 2014	B.Sc., Condensed Matter Physics, Goethe University Frankfurt (Germany) Thesis: Band Structure Studies of Graphene and Modified Graphene Structure Supervisor: Prof. Dr. Roser Valentí

## Relevant Skills

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|--|---------------------------------------|
| - Javascript, Swift, PHP, SQL, CSS, HTML | - Data & Statistics Analysis          |
| - React, React Native, Meteor, Laravel   | - AWS (DynamoDB, S3, Cognito, Lambda) |
| - Wordpress, Goole Analytics, SEO        |                                       |

- Fortran, C++, Solidity
- Matlab, Mathematica

- Photoshop, Illustrator, After Effects
- Unix Shell, Linux

## Funding

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2015 - present    Ph.D. PIF grant at the Autònoma de Barcelona (Spain), 1200 / month

## Teaching Experience

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2015 - 2018    Universitat Autònoma de Barcelona, Theoretical Mechanics/ Quantum Mechanics I/ Quantum Mechanics II, Complex Numbers/ Teaching Assistant (spanish)  
 2014            Goethe Universität Frankfurt, Quantum Mechanics I , exercise tutor  
                   Goethe Universität Frankfurt, Math for Physicists II, exercise tutor  
 2013 - 2014    Goethe Universität Frankfurt, Math for Physicists I, exercise tutor

## Publications

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2015    Diogo Boito, **Dirk Hornung**, Matthias Jamin  
           "Anomalous dimensions of four-quark operators and renormalon structure of mesonic two-point correlators"  
           *arXiv:1510.03812 [hep-ph]*

## Oral presentations

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- 2018 Aix Marseille Université, “Determination of the QCD Coupling from ALEPH  $\tau$ -Decay data”
- 2015 Universitat Autònoma de Barcelona, Master Thesis Defense of :  
“1-Loop anomalous dimensions of 4-quark operators”
- 2014 Goethe Universität Frankfurt, Group Seminar Talk: “Band structure studies of graphene and modified graphene structures”

## Languages

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German: native  
English: proficient  
Spanish: proficient  
French: intermediate  
Hungarian: basics