# Daniel Galviz

galvizblancod@gmail.com

# Curriculum Vitae

## **EDUCATION**

B.Sc IN PHYSICS SUMMA CUM LAUDE University of Los Andes | 2017 Merida, Venezuela

MASTER DEGREE IN PHYSICS Universität Bonn| 2020 Germany. BCGS Scholarship Honors Branch focused on HEP; String Theory and QFT.

PHD. CANDIDATE IN MATHEMATICS Tsinghua University| China. Ongoing studies at Yau Mathematical Science Center focused in Mathematical physics.

### SKILLS

#### **PROGRAMMING**

• Matlab • Mathematica

#### **LANGUAGES**

Spanish: Native. English: Fluent. German: Beginner.

### WORK EXPERIENCE

#### **TEACHING ASSISTANT**

#### Bachelor level:

• ELECTROMAGNETISM University of Los Andes (ULA) | 2016 Merida, VE

#### Master level:

- ADVANCED QUANTUM THEORY Universität Bonn | Winter semester 2018/2019 Bonn, DE
- GENERAL RELATIVITY Universität Bonn | Summer semester 2019 Bonn, DE
- ADVANCED QUANTUM THEORY Universität Bonn | Winter semester 2019/2020 Bonn, DE
- ADVANCED THEORETICAL HADRON PHYSICS

Universität Bonn | Summer semester 2020 Bonn, DE

#### PERSONAL INFORMATION

Daniel Eduardo Galviz Blanco August 12th, 1994 Nationality:Venezuelan, Colombian

### RESEARCH INTERESTS

• Mathematical Physics • String theory • SCFT

# **PUBLICATIONS**

Inspire HEP



Partially Massless Theory in Three Dimensions and Self-dual Massive Gravity, D. Galviz, and A. Khoudeir. Modern Physics Letters A. Vol. 33,No. 12, 1850067 (2018).

A New Theory Framework for the Electroweak Radiative Corrections in  $K_{l3}$  Decays, C.-Y. Seng, D. Galviz, and U.-G. Meißner. Journals High Energy Phys. 10.1007/JHEP02(2020)069.

High-precision determination of the  $K_{e3}$  radiative corrections, C.-Y. Seng, D. Galviz, M. Gorchtein and U.-G. Meißner. Physics Letters B.10.1016/j.physletb.2021.136522.

Improved  $K_{e3}$  radiative corrections sharpen the  $K_{\mu 2}$ – $K_{l3}$  discrepancy, C.-Y. Seng, D. Galviz, M. Gorchtein and U.-G. Meißner. JHEP. 10.1007/JHEP11(2021)172.

An update on  $|V_{us}|$  and  $|V_{us}/V_{ud}|$  from semileptonic kaon and pion decays. C.-Y. Seng, D. Galviz, W. Marciano and U.-G. Meißner. PhysRevD. **PhysRevD.105.013005**.

Full  $K_{l3}$  radiative corrections and implications on  $|V_{us}|$ , C.-Y. Seng, D. Galviz, M. Gorchtein and U.-G. Meißner. Soon to appear.

#### **RESEARCH ASSISTANT | PROJECT: MATHEMATICAL OPTICS**

National Autonomous University of Mexico | Aug-Oct 2016 Cuernavaca, MX

• Working on mathematical methods for signal processing, especially with the Wigner Ville distribution for analysing bioacoustic signals. Under the supervision of Prof. Kurt Bernardo Wolf at Institute for Physical Science.

# **RESEARCH ASSISTANT | PROJECT: QUANTUM KEY DISTRIBUTION** University of Waterloo | May-Aug 2017 Ontario, CA

• Designing new protocols for optical scenarios in Quantum Key Distribution with quantum information theory. Under the supervision of Prof. Norbert Lütkenhaus at Institute for Quantum Computing.

# **RESEARCH ASSISTANT**| PROJECT: CFT AND FUSION RULES Universität Bonn | Oct-Dec 2018 Bonn, DE

Applying CFT techniques to calculate modular transformations and fusion rules
of minimal models and orbifolds. Under the supervision of Prof. Albrecht
Klemm at Bethe Center for Theoretical Physics.

# **RESEARCH ASSISTANT**| PROJECT: New Framework for the Electroweak Radiative Corrections HISKP and BCTP | Sept. 2020 - Sept. 2022 Bonn, DE

• Developing a new theoretical framework for one-loop corrections in effective field theories in the context of QFT/SM. Under the supervision of Prof. U.-G. Meißner at Bethe Center for Theoretical Physics.

# **FULL SCHOLARSHIPS**

• International Center for Theoretical Physics-SAIFR | 2016, São Paulo, BR

To participate in the 'IFT - Perimeter - SAIFR Journeys into Theoretical Physics'. During the journeys five theoretical physics topics were covered.

• Quantum Information Division of the Mexican Physical Society | 2016 MX.

To perform a research during the summer period with the Theoretical and Computational Physics group, ICF-UNAM.

• Undergraduate Research Award by Institute for Quantum Computing | 2017 Waterloo, CA

To work alongside a faculty member of University of Waterloo during the summer and to participate in the Undergraduate School on Experimental Quantum Information Processing (USEQIP).

• Honors Branch Full Scholarship by BCGS for Physics and Astronomy | 2017 Bonn, DE

To perform a Master program of studies and research between universities of Bonn and Cologne.

• Research fellowship | September 2020-2022 Bonn, DE

A New Theory Framework for the Electroweak Radiative Corrections.

•YMSC PhD. Student Scholarship| September 2021-2025 Beijing, CN

To perform a doctoral program of studies and research at Yau Mathematical Science Center, Tsinghua University.

### HONOURS

2012	"Luis María Ribas Dávila" Order. For having obtained the greatest academic
	performance in the School of Chemistry   ULA

- 2015 "Luis María Ribas Dávila" Order. For having obtained the greatest academic performance in the School of Physics | ULA
- 2016 "Luis María Ribas Dávila" Order. For having obtained the greatest academic performance in the School of Physics | ULA
- 2017 "Summa Cum Laude" mention for having earned the B.Sc in physics degree with highest honor | ULA

# **SELECTED ACTIVITIES**

2016	Participated	IFT-Perimeter-SAIFR Journeys into Theoretical Physics São Paulo, BR.
2017	participated	Undergraduate School on Experimental Quantum Information Processing   Waterloo, CA.
2018	participated	Winter School Geometry, Analysis and Physics   Geilo, NO.
2018	Speaker	Seminar on Matrix model in topological string theory  Bonn, DE.
2019	participated	DESY Summer School in Scattering Amplitudes in Gauge and String Theory   Hamburg, DE.
2019	Speaker	Seminar on SUSY representations in 4d and 11d  Bonn, DE.
2020	participated	YRISW: A Modern primer for Superconformal Field Theories Hamburg, DE.
2020	Invited speaker	HISKP Seminar: New Theory Method for Electroweak Radiative Corrections in $K_{l3}$ Decay Bonn, DE.
2021	participated	Junior Duality and Integrability Workshop.
2021	participated	Modular Forms in String Compactifications   Bonn, DE.
2021	participated	Quantum Gravity and Modularity   Dublin, IE.
2021	participated	String Math 2021, IMPA   Rio de Janeiro , DE.
2021	participated	Strings 2021   Natal. BR.