

Alessandro Candido

Curriculum Vitae

Via Pilla 17/A
56121 Pisa
Italy

+39 348 5653797

✉ alessandro.candido1@unimi.it

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Educational Background

2019

PhD Perturbative QCD, *University of Milan*, Milan.

Worked on positivity of NLO PDFs, currently working on a new DIS library for coefficient functions calculation.

Advisor Prof. Stefano Forte

2014

2020

Diploma di Licenza, *Scuola Normale Superiore*, Pisa, 100/100 cum Laude.

2017

2019

MSc Theoretical Physics, *University of Pisa*, Pisa, 110/110 cum Laude.

Average Grade: 29.92/30

2014

2017

BSc Physics, *University of Pisa*, Pisa, 110/110 cum Laude.

Average Grade: ~29/30

Theses

MSc Thesis

Title Simplicial quantum gravity with dynamical gauge fields

Advisor Prof. Massimo D'Elia

description We design an algorithm for performing numerical simulations of the quantum dynamics of both gravity and gauge fields. To do this we used the framework of Causal Dynamical Triangulations (CDT), that acts as an ultraviolet regulator defining the quantum dynamics of gravity on a specific kind of piece-wise linear manifold, the triangulations. So we introduce on these triangulations a gauge structure, generalizing the pure gravity algorithm of CDT by merging it properly with the algorithms used for static flat backgrounds, in a way independent on the dimension of triangulations. We also implement our algorithm and run the simulations, analyzing the outputs and comparing them with the theoretical predictions.

Research Interests

PERTURBATIVE QCD

- Parton Distribution Functions
- Deep Inelastic Scattering
- Numerical Calculations

OTHERS

- Asymptotic Safety
- Causal Dynamical Triangulations

Languages

Italian Native

English Fluent, C1

International English Language Testing System (IELTS)
June 2019, British Council

Skills

Programming Python, C, C++, Fortran

master thesis, PhD's and personal projects

Documents \LaTeX

university reports, master thesis, presentations

Tools Git, GitHub, SSH, Vim, GNU/Linux

personal and group projects, everyday experience

Other Skills Communication, Writing

academic activity

Teaching Experience

Teaching Assistant

2020

● **Fisica Quantistica - first half**, *University of Milan*, Milan, Italy.

Second Semester, *teacher*: Stefano Forte & Alessandro Vicini

Participation In Events

2020

● **GGI lectures on the theory of fundamental interactions**, *Galileo Galilei Institute for Theoretical Physics*, Florence, Italy.

References

Stefano Forte

Professor

Physics Dept., University of Milan
Milan, Italy

✉ stefano.forte@mi.infn.it

Massimo D'Elia

Professor

Physics Dept., University of Pisa
Pisa, Italy

✉ massimo.delia@unipi.it