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Oleksandr Gituliar, PhD

Date of birth: 7 April, 1987
Nationality: Ukrainian
Current city: Copenhagen (Denmark)
Languages: English and Polish (fluent), Russian and Ukrainian (native)

Experience

2020.11 – present **Market-Risk Quant (Senior), Danske Bank (Denmark).**
- Productionise Differential Machine Learning for calculating future exposure in C++, AAD, and Python
- Extend internal Derivatives Scripting Language to learn and predict future prices of derivative instruments in C++
- Implement regulatory Counterparty Credit-Risk Model in C++

2018.07 – 2020.10 **XVA Quant (Associate), Credit Suisse (Poland / UK).**
- Develop exposure models for IR derivatives in C++ / AAD
- Build F# infrastructure to backtest Initial-Margin Model and report to ISDA and NFA. Develop Excel tools for traders to explain IM
- Superwise IT on implementing LIBOR transition and oversee books migration
- Daily support for XVA desk (SQL, Python, common sense)

2016.10 – 2018.06 **Postdoc, Hamburg University (Germany).**

2015.01 – 2016.09 **Postdoc, Institute of Nuclear Physics (Poland).**

2014.04 – 2014.12 **Postdoc, German Electron Synchrotron DESY (Germany).**
- See my profile on Google Scholar (22 papers, 320+ citations)

Education

2009.10 – 2014.06 **PhD in Particle Physics, Institute of Nuclear Physics (Poland)**,
Thesis: *Higher-order corrections in QCD evolution equations and tools for their calculation*, arXiv:1403.6897

2004.09 – 2009.06 **MSc in Particle Physics, Dnipropetrovsk National University (Ukraine)**,
Thesis: *Heavy neutral vector boson search in the LHC experiment*

Skills

Mathematics: **Finite Difference, Monte-Carlo, Linear Algebra, Probability, Differential Equations, Machine Learning**

Programming: **C++, F#, Python, Git, SQL, Linux**

Software Projects

Kwinto — C++/GPU implemetation of the Finite-Difference method for pricing derivatives. Sources at github.com/gituliar/kwinto-cuda.

Fuchsia — Python implementatioin of the ϵ-form method for solving Differentaial Equations in symbolic form. Sources at github.com/gituliar/fuchsia.
Published with 150+ citations in Comput.Phys.Commun. 219 (2017) 329-338