Sebastian Zając Ph. D.

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Education

Data Mining and Statistical Analysis in business **2015-2016**
Warsaw School of Economics

Ph.D. Student in Physics **2007-2013**
University of Silesia in Katowice,
Division of Field Theory and Elementary Particle Physics

Master's Degree in Econophysics **2005-2007**
University of Silesia in Katowice,
Division of Field Theory and Elementary Particle Physics

Bachelor's Degree in Econophysics **2002-2005**
University of Silesia in Katowice,
Division of Field Theory and Elementary Particle Physics

Music School in Rybnik , I and II degree **1994-2004**

Work Experience

Cardinal Stefan Wyszyński University in Warsaw, Poland **09.2016**
Vice-Dean for the infrastructure:

SGH Warsaw, Poland **02.2015**
Lecturer: *Methodology of Data Warehouse in SAS*

Cardinal Stefan Wyszyński University in Warsaw, Poland **09.2015**
Assistant Professor:

GoWork Warsaw, Poland **07.2013**
Lecturer: *Web applications development, Programming - HTML5, CSS, MySQL, PHP, JavaScript, JQuery, Smarty, Wordpress, CodeIgniter*

Cardinal Stefan Wyszyński University in Warsaw, Poland **10.2013**
Lecturer: *Financial Engineering, Introduction to Financial Markets, Mathematica Laboratory, Computers Laboratory, Data Warehouse.*

NCN Opus 5 Grant **03.2014**
University of Silesia in Katowice, Poland
Title: *Attempts to explain the quark and leptons masses and mixing*
Scope of activities: *Computer programs in **Mathematica** for computing mass and mixing parameters with different group symmetry. Statistical tests and veryfications of parameters.*

Foundation for Polish Science, SKILLS/Inter PostDoc 09.2013-12.2014
Title: *On topology, interacting RNA, and quantum physics*
Scope of activities: *Computer programs in **C++, Python** for statistical analysis RNA, DNA and protein. Computing topological characteristics from RNA structures.*

MNiSW Grant **01. 2011-12.2012**
University of Silesia in Katowice
Title: *Neutrino properties beyond the Standard Model, study of possibilities for experimental verification*
Scope of activities: *Computer programs in **Mathematica** for computing neutrinos cross section in future experiments. Statistical veryfication for new physics interactions.*

BioStat Rybnik, Poland **11. 2011-02.2012**
Position: *statistical analyst*
Scope of activities: *Statistical raports from medicine data. Data preparation and presentation.*

Wasko S.A. Gliwice, Poland **07. 2011-10.2011**
Position: *software tester for SI WCPR system - emergency services*
Scope of activities: *Work in programs: JIRA, TESTLINK, SharePoint for acceptance, functional, and regresion tests.*

Conferences, Workshops and Schools (with Contribution)

Matter To The Deepest: **05-11 09 2007**
XXXI International Conference of Theoretical Physics
Ustroń, Poland
Contribution: *Neutrino oscillations in the case of general interaction.* (Pub.)

UniverseNet **22-26 09 2008**
The second network school and meeting
Oxford, UK
Contribution: *Neutrino propagation in the case of general interaction.* (Poster)

Coherence and correlations in nanosystems **05-10 09 2008**
XXXII International Conference of Theoretical Physics
Ustroń, Poland
Contribution: *Fisher and structural information of the system. Phenomenological considerations.* (Poster)
The method of the likelihood and the Fisher information in the construction of physical models. (Pub.)

Matter To The Deepest: **11-16 09 2011**
XXXV International Conference of Theoretical Physics

Ustroń, Poland
Contribution: *Majorana neutrino mass matrix with CP symmetry breaking.* (Pub.)

Matter To The Deepest: **09 2013**
XXXVII International Conference of Theoretical Physics
Ustroń, Poland
Contribution: *Attempts at Explaining Neutrino Masses and Mixings Using Finite Horizontal Symmetry Groups.* (Pub.)

Matter To The Deepest: **13-18 09 2015**
XXXIX International Conference of Theoretical Physics
Ustroń, Poland
Contribution: *The Flavor Problem and the Family Symmetry Beyond the Standard Model .* (Pub.)

Interdisciplinary conference TYGIEL: **18-19 03 2017**
Lublin, Poland
Contribution: Discrete symmetry flavor group in SM and New Physics . (Sem.)
Topological classification of RNA and Protein structure. (Sem.)

Courses and Certificates

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7 International publication

University of Silesia in Katowice, Poland
Preparing e-learning courses: Advanced Quantum Mechanics for Ph.D. Students and Lectures from Classical Mechanics

Warsaw Stock Exchange: *„basics of stock market investing"*
SAS Institute: „*Business analysis with SAS Visual Analytics"*
SAS Institute: „*Designing and creating OLAP cubes"*
ESSAM-ICM: *„BigData Analysis with Spark"*
SAGE: *„Introduction to Big Data with Apache Hadoop"*
SAGE: *„Introduction to Machine Learning with Python"*

Teaching course: *Physics*

Languages

English: *Intermediate*

Computer skills

Programming Languages: Python, C++, PHP, Bash, JavaScript
Markup Languages: LaTeX, HTML
Applications: Microsoft Office, Open Office, iWork, Mathematica, SAS, Statistica
Operating Systems: Microsoft Windows, OS X, Linux