

RobertKwapich

interdisciplinary medical physicist

about

date of birth:

22nd January 1991
Katowice, Poland

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languages

polish (native)
english (fluent)
french (A2)

programming

Python
bash, awk, sed,
Perl, R

interests

bioinformatics, computational biology, algorithms, data-mining, genomic studies, next-generation sequencing, physics, radiation, radiology

education

Feb. 2015 –

– Jun. 2017

M.Sc. Medical Physics

Specialization in Radiation Oncology

University of Silesia in Katowice

Oct. 2011 –

– Feb. 2015

B.Sc. Medical Physics

Specialization in Electroradiology

University of Silesia in Katowice

Sep. 2007 –

– May. 2011

Information & Communication Technology

ICT Technician Diploma

Śląskie Techniczne Zakłady Naukowe (*Technical High school*), Katowice

experience

Jul. 2016 –

– now

**Oklahoma Medical Research Foundation,
Gaffney Lab, Oklahoma, USA**

Microbiome study of Systemic Lupus Erythematosus patients.

Research Trainee

Mar. 2015

**École Polytechnique Fédérale de Lausanne,
Switzerland**

BioSemic start-up project. Prototype project development; integration of stepper motors into prototype, automatization of laser-mirror alignment.

Research Internship.

Feb. 2015

Bsc. of Medical Physics thesis defense.

Multifractal detrended fluctuation analysis (MFDFA) of time series generated by motion capture of student paramedics from captured video scenarios.[Polish]

University of Silesia in Katowice

Aug. 2014 –

– Oct. 2014

**École Polytechnique Fédérale de Lausanne,
Laboratory of Physics of Living Matter, Switzerland**

Preparation of E.coli samples on mica surface, AFM measurements, further image analysis; work resulted in publication (see publications)

Research Internship.

Jul. 2013 –

– Aug. 2013

Provincial Hospital Megrez; Tychy, Poland

Department of Diagnostic Imaging and "CLINICA MEDICA" Department of Nuclear Medicine

Operating standard X-ray, CT, Medical Ultrasonography, PET

Internships

publications

Feb.
2015

Effects of physiological self-crowding of DNA on shape and biological properties of DNA molecules with various levels of supercoiling.

Nucleic Acids Research

F. Benedetti, A. Japaridze, J. Dorier, D. Racko, **R. Kwapich**, Y. Burnier, G. Dietler & A. Stasiak

conferences

Mar. 2017

Scientific Retreat

Oklahoma Medical Research Foundation

Poster: *"NGS Microbiome study of patients with Systemic Lupus Erythematosus"*

Oct. 2014

Swiss Soft Days

Lausanne, Switzerland

Soft matter conference. (listener)

The community of scientists (material scientists, physicists, engineers, chemists, biologists) working on problems related to Soft Matter in Switzerland is scattered within different departments and under diverse denominations