

FABIAN SCHUHMANN

PERSONAL INFORMATION

Born in Freising, Germany, 7th May 1991

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website fabianschuhmann.github.io

CURRENT EMPLOYMENT

PhD student

2020-now (expected to finish 03/2023) · Carl von Ossietzky University Oldenburg · PhD student in the group of Prof. Dr. Ilia A. Solov'yov · Thesis topic: **Development of theoretical methods to analyze and gain biophysical data**

EDUCATION

Master of Science

2017-2019 · RUHR UNIVERSITY BOCHUM · Faculty of Mathematics
Thesis: *Dynamics of billiards with emphasis on the length of the shortest periodic billiard trajectory*

Bachelor of Science

2013-2016 · RUHR UNIVERSITY BOCHUM · Faculty of Mathematics
Thesis: *Das Brunn-Minkowski Theorem und die isoperimetrische Ungleichung*

Bachelor of Science

2011-2016 · RUHR UNIVERSITY BOCHUM · Faculty of Economics
Thesis: *Globaler Umweltschutz als Problem der privaten Bereitstellung eines öffentlichen Gutes*

PUBLICATIONS

THE SAME, BUT DIFFERENT, BUT STILL THE SAME: STRUCTURAL AND DYNAMICAL DIFFERENCES OF NEUTROPHIL ELASTASE AND CATHEPSIN G

Fabian Schuhmann, Xiangyin Tan, Luca Gerhards, Heloisa N. Bordallo, Ilia A. Solov'yov

The European Physical Journal D 2022, Volume 76, p. 126

COMPUTATIONAL RECONSTRUCTION AND ANALYSIS OF STRUCTURAL MODELS OF AVIAN CRYPTOCHROME 4

Maja Hanić, Fabian Schuhmann, Anders Frederiksen, Corinna Langebrake, Georg Manthey, Miriam Liedvogel, Jingjing Xu, Henrik Mouritsen, Ilia A. Solov'yov

Journal of Physical Chemistry B 2022, Volume 126, p. 4623-4635

THE TRANSITION OF PHOTORECEPTOR GUANYLATE CYCLASE TYPE 1 TO THE ACTIVE STATE

Manisha Kumari Shahu, Fabian Schuhmann, Alexander Scholten, Ilia A. Solov'yov, Karl-Wilhelm Koch

International Journal of Molecular Sciences 2022, Volume 23, p. 4030

NAVIGATION OF MIGRATORY SONGBIRDS: A QUANTUM MAGNETIC COMPASS SENSOR

Siu Ying Wong, Anders Frederiksen, Maja Hanić, Fabian Schuhmann, Gesa Grüning, P. J. Hore, Ilia A. Solov'yov

Neuroforum 2021, Volume 27, Issue 3, p. 141-150

EXPLORING POST-ACTIVATION CONFORMATIONAL CHANGES IN PIGEON CRYPTOCHROME 4

Fabian Schuhmann, Daniel R. Kattnig, Ilia A. Solov'yov

The Journal of Physical Chemistry B 2021, Volume 125, Issue 34, p. 9652-9659 (chosen for cover)

INTRODUCING PEP McCONST—A USER-FRIENDLY PEPTIDE MODELER FOR BIOPHYSICAL APPLICATIONS

Fabian Schuhmann, Vasili Korol, Ilia A. Solov'yov

Journal of Computational Chemistry 2021, Volume 42, Issue 8, p. 572-580

TEACHING EXPERIENCE

<i>Teacher</i>	2021 · Carl von Ossietzky University Oldenburg · In charge of a two-weeks mathematics crash course to bridge the gap between school mathematics and university mathematics
<i>Tutor</i>	2020 · Carl von Ossietzky University Oldenburg · Mathematical Modelling for future teachers · summer term 2020
<i>Tutor</i>	2017-2019 · Ruhr-University Bochum Mathematics for Biologists · winter term 18/19 Mathematics for Engineers II · summer term 18 Mathematics for Engineers I · winter term 17/18
<i>Assistent</i>	2016-2018 · Hochschule Bochum · 'Institut für Mathematik und Technikdidaktik'.
<i>Tutor</i>	2015-2019 · Hochschule Bochum · Mathematics for Economists

EXTENSIVE STAYS

<i>Visiting</i>	05/2022 · Living Systems Institute University of Exeter · guest of Dr. Daniel Kattnig
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OTHER QUALIFICATIONS

*Workshops and
additional training*

Workshop on finances and booking the public sector
 Trainer licence C for general sports
 Workshop to teaching mathematics by ZAB at Ruhr-University Bochum

Voluntary work

2021- · Doctoral representative on the board of the Research Training School
 “GRK 1885 - Molecular Basis of Sensory Biology”
 Carl von Ossietzky University Oldenburg
 2015-2018 · Member of the Faculty Council Mathematics
 Ruhr-University Bochum
 2014-2018 · Member of the student representations Mathematics
 Ruhr-University Bochum
 2010-2011 · Voluntary Social Year
 CVJM Westbund e.V. Wuppertal

Languages

GERMAN · Native
 ENGLISH · Fluent

Computer Skills

L^AT_EX · Advanced
 PYTHON · Advanced
 LINUX · Advanced
 GIT · Basic
 C++ · Basic
 SLURM · Basic
 TCL · Basic

October 14, 2022