

FABIAN SCHUHMANN

PERSONAL INFORMATION

Born in Freising, Germany, 7th May 1991

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website fabianschuhmann.github.io

CURRENT EMPLOYMENT

research assistant 2023-now · Carl von Ossietzky University Oldenburg · researcher in the group of Prof. Dr. Ilia A. Solov'yov

EDUCATION

Ph.D. 2020-2023 · CARL VON OSSIETZKY UNIVERSITY OLDENBURG · Institute of Physics
Thesis: *Spotting The Difference - Tailored Tools to Analyze Protein Dynamics*;
graduated 'summa cum laude'

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

ACROSS ATOMS TO CROSSING CONTINENTS: APPLICATION OF SIMILARITY MEASURES TO BIOLOGICAL LOCATION DATA
Fabian Schuhmann, Leonie Ryvkin, James D. McLaren, Luca Gerhards, Ilia A. Solov'yov
Plos ONE 2023, Volume 18, p. e0284736

EFFECTS OF DYNAMICAL DEGREES OF FREEDOM ON MAGNETIC COMPASS SENSITIVITY: A COMPARISON OF PLANT AND AVIAN CRYPTOCHROMES
Gesa Grüning, Siu Ying Wong, Luca Gerhards, Fabian Schuhmann, Daniel R. Kattnig, P. J. Hore, Ilia A. Solov'yov
Journal of the American Chemical Society 2022, Volume 144, p. 22902-22914

ON THE ENERGETIC DIFFERENCES OF AVIAN CRYPTOCHROMES 4 FROM SELECTED SPECIES
Maja Hanić, Anders Frederiksen, Fabian Schuhmann, Ilia A. Solov'yov
The European Physical Journal D 2022, Volume 76, p. 198

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 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>Assistant</i>	2016-2018 · Hochschule Bochum · 'Institut für Mathematik und Technikdidaktik'.
<i>Tutor</i>	2015-2019 · Hochschule Bochum · Mathematics for Economists

FUNDING

02/2023 · SIAM CSE 2023, Amsterdam · received SIAM Travel Award
10/2022 · Invited presenter at the ISBUC Symposium in Copenhagen
05/2022 · Research stay at the Living Systems Institute, University of Exeter · guest of Dr. Daniel Kattnig · Funded by the German Academic Exchange Service (DAAD), Program: 57595508

ACHIEVEMENTS

02/2023 · SIAM Hackathon 2023, Amsterdam · Member of a team which made it to finals

OTHER QUALIFICATIONS

*Workshops and
additional training*

Workshop on finances and booking the public sector
 Trainer licence C for general sports
 Workshop on 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

May 22, 2023