RAPHAEL PELTZER

PHD COMPUTATIONAL CHEMISTRY

CONTACT

+47 40586568

raphaelpeltzer@gmail.com

10.03.1992

CORE PROFILE

- Analytical thinker
- Methodological and structured work
- Collaborative worker
- Solving complex problems

EXPERTISE

- Molecular Dynamics, CP2K
- MM, Creating system-tailored models
- Statistics, MC Simulations
- Enhanced Sampling
- Free Energy Calculations, QM Methods
- Biochemistry
- Science Communication
- Large Data Visualization and Analysis, VMD, MATLAB

PROFILE

Extensive experience in research, statistical analysis, and predictive simulations. Passionate about chemistry, mathematics, learning and complex problems. Eager to create research that will make our quickly changing world a better place in a team of like-minded colleagues. Core competencies include the ability to quickly abstract the key components of complex matters, the ability to stay extremely focused on a goal over a long period of time and experience working in multinational teams both as lead and as key subject contributor.

EDUCATION

PHD COMPUTATIONAL CHEMISTRY 2014-2018

University of Oslo – CTCC/Hylleraas Norwegian Centre of Excellence

Thesis title: "Multi-scale computational modeling of bio-chemical systems in the condensed phase"

Including a first author publication among the top1% in reach compared to all publications of similar age.

Raphael M. Peltzer, Jürgen Gauss, Odile Eisenstein, and Michele Cascella J. Am. Chem. Soc. **2020** *142* (6),2984-2994

M. SC. THEO. AND COMPUTATIONAL CHEMISTRY 2013-2014

University of Oxford

Grade: A(excellent)

Thesis title: "Simulating folding of a DNA pyramid"

B. SC. CHEMISTRY 2011-2013

Technische Universität München

Grade: 1.6

Thesis title: „Investigation of conformation exchange of dimethylated arginine as a recognition motif"

- TUM twoinone – Semester 1 and 2 done in 6 months
- Top 3% academically
- Selected on academic and extracurricular merit to 2 National Scholarship awards

SOCIAL ENGAGEMENT

- Youth Chess Teacher (4 yrs)
- Youth group leader (4 yrs)
- Student organization (2 yrs)

COMPUTER SKILLS

- LaTeX, MS Office, esp. Powerpoint, Excel,
- Shell Scripting, Python, esp. numpy,panda, plotly

LANGUAGE SKILLS

German – Mother tongue

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English – CEFR Level C2

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Norwegian – CEFR Level C1

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SCHOLARSHIP & AWARDS

German Scholarship Award

Selected student group on merit and outstanding performances

Max-Weber Scholar
Elite Network Bavaria

Proposed as top 3% students academically and selected by Selection Seminar Committee

INTERESTS

- Chess, Volleyball, Squash
- Board Games, Strategy and Card Games
- Puzzles, Sudoku

WORK EXPERIENCE

PELTZER GAMING AS – ESPORTS PROFESSIONAL

2018-PRESENT

- Data analysis, tournament preparation and simulation
  - 2022 **World Champion**, Highest winning player worldwide
  - Simulations, **data analysis**, in-depth **research** and logic-based strategy optimization to increase win probability
  - Quick decision making and **creativity** are key to success
- Team management
  - **Team Lead** for Global Team Championship winning team
  - Collaborations with people from 20+ countries
- Contractor for **Team Liquid**, **Samsung** and more
  - Competitor representing international brands
  - Streaming/content creation for brand visibility

Voluntary additional work:

- Gameplay coaching, science communication
  - Successful coach for other players
  - Daily/weekly science outreach bringing complex topics/research to a wide audience
- Event organization, event management, sponsorship acquisition

UNIVERSITY OF OSLO – LECTURER 2014-2018

- Preparing and leading lectures as well as study groups
- Subjects: Biochemistry, physical chemistry, quantum chemistry

TU MUNICH – TUTOR 2012-2013

- Preparing and leading tutorium
- Subjects: Advanced Mathematics, quantum chemistry

NASA HUNTSVILLE-RESEARCH INTERSHIP 2010

- Investigation of interplanetary shock waves

PUBLICATION LIST

Qiang Hu, Xianzhi Ao, **R. Peltzer**, and Gary P. Zank *AIP Conf. Proc.***2012** 1500,pp. 188-193

Raphael M. Peltzer, Odile Eisenstein, Ainara Nova, and Michele Cascella *The Journal of Physical Chemistry B* **2017** *121* (16), 4226-4237

Raphael M. Peltzer, Hima Bindu Kolli, Achim Stocker, and Michele Cascella *The Journal of Physical Chemistry B* **2018** *122* (28), 7066-7072

Raphael M. Peltzer, Jürgen Gauss, Odile Eisenstein, and Michele Cascella *Journal of the American Chemical Society* **2020** *142* (6),2984-2994