

Welcome to the Academic Careers Panel



JULY 26-30 2021, ZOOM/GATHER@MIT

The 38th International Symposium on Lattice Field Theory

July 29, 2021

Panelists

- **Junior (tenure-track) Faculty**
 - Prof. V. Gülpers (University in Edinburgh)
 - Prof. J. Liang (South China Normal University)
 - Prof. M. Marinkovic (ETH Zurich)
 - Prof. S. Zafeiropoulos (Aix-Marseille-Université et Université de Toulon)

- **Experienced (tenured) Faculty**
 - Prof. A. El-Khadra (University of Illinois)
 - Prof. T. Izubuchi (RIKEN, Brookhaven National Laboratory)
 - Prof. X. Ji (University of Maryland)
 - Prof. T. Wettig (University of Regensburg)

Academic careers panel – Lattice 2021

Vera Gülpers



My career path

- 2011-2015 PhD, University of Mainz, Germany
- 2015-2018 Postdoc, University of Southampton, UK
- 2018-2020 Postdoc, University of Edinburgh, UK
- since July 2020 Lecturer, University of Edinburgh, UK

Some random advice (that helped me)

- attend conferences and present your work
- take other opportunities, e.g. supervise students, etc
- ask someone to proofread your application

2010 - 2015: Ph.D. Student in Institute of High Energy Physics, Chinese Academy of Sciences

Focused on hadron spectrum (glueballs/Omega baryon)

2015 - 2020: Postdoc at University of Kentucky with Prof. Keh-Fei Liu

Focused on nucleon structure



2020 - Present: Faculty in Institute of Quantum Matter, South China Normal University

Southern Nuclear Science Computing Center (SNSC) v0:

2 nodes x 16 V100, 20 nodes x 8 V100, 192 V100 GPUs in total

1.5 PFlops peak performance, 1PB bare storage with Beegfs parallel file system



Scientific trajectory:

→ 2006 DESY Zeuthen (Th. Particle Phys.) / University of Oslo (Quantum Chemistry)



→ 2008 - 2009 MSc Thesis: DESY Zeuthen/Humboldt Universität zu Berlin, Germany



Undergraduate: University of Belgrade, Serbia

→ 2009 - 2013 PhD Thesis: HU Berlin, Germany



→ 2012 - 2014 Research Fellow: University of Southampton, UK



→ 2014 - 2017 CERN Fellow (Visiting Scientist since October 2017)



→ 2016 - 2019 Assistant Professor, Trinity College Dublin, Ireland (3y)



→ 2020 - 2021 Junor-Professor at LMU München (3+3y)



→ 2021 - Assistant Prof. in Computational Physics (Tenure-track)



Key takeaways:

1. Apply for positions where you could imagine yourself for a few years
2. Reach out and ask advice from senior colleagues and peers!
3. Network already during your undergraduate/graduate studies

My studies



HELLENIC REPUBLIC
National and Kapodistrian
University of Athens

BSc in Physics, 2002 - 2006



Stony Brook
University

PhD in Physics, 2007 - 2013

PhD Adviser: Jacobus Verbaarschot

Thèse: *Random Matrix Theories for Lattice QCD
Dirac Operators*

My professional experience



2013 - 2014

Postdoctoral Researcher



2014 - 2016

Alexander von Humboldt Fellow



2016 - 2017

Postdoctoral Researcher



UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386

2017 - 2019

Postdoctoral Researcher



2019 -

Permanent Researcher

Advice for early career theorists seeking faculty positions

- Make sure you have a good support network.
- **Seek additional mentors**, other than your graduate & postdoc advisors
(can be peers, more experienced grad students postdocs)
- **Take the time to adjust your cover letter & application package** to the institution
(area of specialization, i.e. nuclear theory, computational physics, QIS, ...)
- **Build teaching, diversity statements from your own experiences**
student \Leftrightarrow teacher
mentor \Leftrightarrow mentee
member of minority group \Leftrightarrow interacting with diverse groups
- **Make sure your mentors/letter writers (still) know you** — keep in touch with your advisors
- **Do your homework if you are invited to interview:**
about the department, about the faculty, research groups, climate (talk to people who have been there)
Focus on/illuminate shared research interests, ask questions

Academic Career: Tips & Advice



- Lattice coverage grows tremendously, but # of staff/professor hiring are disproportional perhaps 1 or 2 job / year in U.S. at best
- Matching
e.g., Lab job vs university job (and joint positions)
- Lattice advantages
fundamental science with actual numerical data confronting experiments
(HPC, Software, Data science, Statistics, ML,)
- Communication skills : Make them understand
talk to friends and colleagues
application documents
interviews target audience
- Have a fun is the most important

Tips for job hunting (x. ji)

- Build up your CV
 - At least 3-4 papers a year
 - A few papers with 50+ citations
 - A few talks per year
 - Teaching experience
- Three references (“senior” people with good reputations)
- Give an excellent interview talk
- Can have a good chat with any physicist (and Dean), know a little bit of everything (superconductivity, cold atoms, neutrinos, LHC), Outgoing and curious
- Good English

- preliminaries
 - hiring processes can be quite unpredictable
 - different decision makers (in same committee) may have different preferences
- hard criteria
 - reputation and visibility (especially in large collaborations)
 - publication and citation record
 - good scientific fit to the group that's hiring
 - at senior levels: third-party funding or career grants
- soft criteria
 - demonstrate credible interest in the hiring institution (e.g., possible collaborations)
 - teaching record/vision (we have students in our search committees)
 - administrative or community service (workshops, committees, etc.)
 - mobility (study or postdoc abroad)
 - performance in talk/interview/dinner (Would you be a good colleague?)