

UNIVERSITY OF MILAN

Public selection for recruiting No. 1 tenure track researcher(s) (RTT) for competition sector 01/A4 - Mathematical Physics, (scientific-disciplinary sector MAT/07 - Mathematical Physics) at the Department of Mathematics "Federigo Enriques", (announcement published in Official Gazette No. IV of "Serie speciale Concorsi ed Esami") - Competition code 5512

Per Moosavi

CURRICULUM VITAE

(N.B. CV MUST BE OF UP TO 30 PAGES AND INCLUDE THE DETAILS CANDIDATES CONSIDER USEFUL FOR THE ASSESSMENT. ALL THE TITLES INSERTED BELOW ARE JUST EXAMPLES THAT CAN BE REPLACED, CHANGED OR COMPLETED)

PERSONAL DATA (DO NOT INCLUDE YOUR PERSONAL ADDRESS AND LANDLINE OR MOBILE PHONE NUMBER)

SURNAME	MOOSAVI
NAME	PER
DATE OF BIRTH	■■■■■■■■■■

QUALIFICATIONS

DEGREE

(Specify full degree name, University, date, etc.)

MSc and BSc in Engineering Physics

KTH Royal Institute of Technology, Stockholm, Sweden

Date of fulfillment of degree requirements: August 18, 2013

Date of issue of degree: November 21, 2013

BSc in Business and Economics

(Specializations: Economics and Finance)

Stockholm School of Economics (SSE), Stockholm, Sweden

Date of graduation: June 10, 2013

DOCTORAL DEGREE OR EQUIVALENT QUALIFICATION EARNED IN ITALY OR ABROAD

(Specify qualification full name, institution, date, etc.)

Degree of Doctor of Philosophy

in the subject area **Physics** specialized in **Theoretical Physics**

KTH Royal Institute of Technology, Stockholm, Sweden

Department of Physics, School of Engineering Sciences, Supervisor: Prof. Edwin Langmann

Title of thesis: Non-equilibrium dynamics of exactly solvable quantum many-body systems

Date of defense: December 14, 2018

Date of issue of degree: January 10, 2019

RESEARCH CONTRACTS, RESEARCH FELLOWSHIP CONTRACTS, POSTDOCTORAL SCHOLARSHIPS OR SIMILAR CONTRACTS

(Specify, for each contract, university/institution, starting and termination date, etc.)

Researcher

Stockholm University, Sweden
Department of Physics
Oct 2023 – Present

Postdoc

ETH Zurich, Switzerland
Department of Physics (D-PHYS)
Institute for Theoretical Physics (ITP)
Oct 2019 – Sep 2023

PhD Student

KTH, Stockholm, Sweden
Department of Physics
Nov 2014 – Aug 2019 (full employment)
Dec 2014 – Dec 2018 (doing the PhD)

Research Assistant

CERN, Meyrin, Switzerland
Apr 2014 – Aug 2014

Research Assistant

KTH, Stockholm, Sweden
Sep 2013 – Mar 2014

Summer Student

CERN, Meyrin, Switzerland
Jun 2013 – Aug 2013

Teaching Assistant

KTH, Stockholm, Sweden
Aug 2012 – May 2013

TEACHING ACTIVITIES AT ITALIAN OR FOREIGN UNIVERSITIES

(Specify academic year, university, degree course, number of hours etc.)

Courses:

- 2023 **Tutor**, Proseminar on Riemann surfaces in mathematical physics, Dep. of Physics, ETH.
- 2022 **Tutor**, Proseminar on solitons and instantons in condensed matter, Dep. of Physics, ETH.
- 2021 **Tutor**, Proseminar on classical field theory, Dep. of Physics, ETH.
- 2020 **Tutor**, Proseminar on modern topics in condensed matter physics, Dep. of Physics, ETH.
- 2019 **Teaching Assistant**, Vector analysis, Dep. of Physics, KTH.
- 2018 **Teaching Assistant**, Mathematical methods in physics, Dep. of Physics, KTH.
- 2017 **Lecturer**, Vector analysis, Dep. of Physics, KTH.
- 2017 **Teaching Assistant**, Statistical mechanics, Dep. of Physics, KTH.
- 2017 **Teaching Assistant**, Mathematical methods in physics, Dep. of Physics, KTH.
- 2016 **Teaching Assistant**, Statistical mechanics, Dep. of Theoretical Physics, KTH.

2016 **Teaching Assistant**, Mathematical methods in physics, Dep. of Theoretical Physics, KTH.

2015 **Teaching Assistant**, Vector analysis, Dep. of Theoretical Physics, KTH.

2015 **Teaching Assistant**, Mathematical methods in physics, Dep. of Theoretical Physics, KTH.

2013 **Teaching Assistant**, Multivariable calculus, Dep. of Mathematics, KTH.

Students supervised:

2022 -- 2023 Valerio Pagni, MSc thesis, co-supervised, ETH Zurich.

2020 -- 2023 In total 15 students (BSc and MSc level) supervised in proseminars, ETH Zurich.

ATTESTED TRAINING OR RESEARCH ACTIVITIES AT QUALIFIED ITALIAN OR FOREIGN INSTITUTIONS
(Specify academic year, institution, course, period, etc.)

Training in Research Supervision and Teaching:

2024 Stockholm University, **Research Supervision in theory and practice**, 3.0 ECTS

2015 KTH Royal Institute of Technology, **Basic communication and teaching**, 3.0 ECTS

IMPLEMENTATION OF PROJECTS
(Specify date, project name, etc.)

2023 Research grant from the Wenner-Gren Foundations

Principal: **Per Moosavi**

Title: *Deformed or disordered quantum liquids in and out of equilibrium*

Amount: 2 576 000 SEK

2021 Workshop funding from the Pauli Center for Theoretical Studies

Principals: Nicolo Defenu, Gian Michele Graf, **Per Moosavi**

Title: *Out-of-equilibrium and collective dynamics of quantum many-body systems*

Amount: 28 250 CHF

2019 Postdoc fellowship (3 years) from the Wenner-Gren Foundations

Principal: **Per Moosavi**

Title: *Topology and disordered quantum systems out of equilibrium*

Amount: 212 524 CHF

2019 Postdoc fellowship (3 years) from the Swedish Research Council

Principal: **Per Moosavi**

Title: *Topology and disordered quantum systems out of equilibrium*

Amount: 3 150 000 SEK

Awarded, but declined in favor of the fellowship from the Wenner-Gren Foundations.

ORGANISATION, SUPERVISION AND COORDINATION OF NATIONAL AND INTERNATIONAL RESEARCH GROUPS, OR PARTICIPATION IN THEM

(For each entry, specify year, role, research group, etc.)

Organization of workshop:

2022 *Out-of-equilibrium and collective dynamics of quantum many-body systems*

ETH Zurich, June 27 – July 1, organized by N. Defenu, G. M. Graf, and P. Moosavi

Link: <https://people.phys.ethz.ch/~pmoosavi/workshop/>

Number of participants: 66 in person (21 invited talks, 11 contributed talks, 10 poster presentations)

HOLDING PATENTS

(For each patent, specify authors' names, title, classification, patent number, etc.)

None

SPEAKING AT NATIONAL AND INTERNATIONAL CONFERENCES AND CONVENTIONS

(Specify conference/convention title, date, etc.)

2024 Seminar talk, Joint Condensed Matter Seminar, KTH & Stockholm University & Nordita, Stockholm, Sweden.

2023 Seminar talk, Quantum Lunch, Dep. of Mathematical Sciences, University of Copenhagen, Denmark.

2023 Seminar talk, Seminar for Applied Mathematics, Dep. of Mathematics, ETH Zurich, Switzerland.

2023 Lecture, Dep. of Physics, Freie Universität Berlin, Germany.

2023 Seminar talk, Joint Condensed Matter Seminar, KTH & Stockholm University & Nordita, Stockholm, Sweden.

2023 Seminar talk, PDEs and Applications Seminar, Dep. of Mathematics, Uppsala University, Sweden.

2023 Contributed talk, Mathematical Aspects of Condensed Matter Physics, ETH Zurich, Switzerland.

2023 Invited talk, Geometric and Analytic Aspects of the Quantum Hall effect, SwissMAP Research Station, Les Diablerets, Switzerland.

2023 Seminar talk, Mathematics of Many-Body Systems, Mathematics Area, SISSA, Trieste, Italy.

2023 Invited talk, Integrability in Condensed Matter Physics and Quantum Field Theory, SwissMAP Research Station, Les Diablerets, Switzerland.

2023 Seminar talk, Dep. of Physics, University of Geneva, Switzerland.

2023 Seminar talk, Quantum Spin Lattice Seminar, Online (jointly Caltech & UC Davis).

2023 Invited talk, Mathematical Quantum Matter, Università degli Studi di Milano, Italy.

2022 Seminar talk, Laboratoire de Physique et Chimie Théoriques, Université de Lorraine, Nancy, France.

2022 Seminar talk, PDEs and Applications Seminar, Dep. of Mathematics, Uppsala University, Sweden.

2022 Contributed talk, QMATH 15, UC Davis, California, USA.

2022 Seminar talk, Dep. of Physics, Freie Universität Berlin, Germany.

2021 Seminar talk, Talks in Mathematical Physics, Dep. of Mathematics, ETH Zurich, Switzerland.

2021 Seminar talk, Itinerant Quantum Math Meetings, Università degli Studi di Milano, Italy.

2021 Invited talk, Archipelagic Perspectives on Mathematics and Physics, Djurö, Sweden.

2021 Poster presentation, XX International Congress on Mathematical Physics, Geneva, Switzerland.

2021 Contributed talk, Low Dimensional Quantum Many Body Systems, Heidelberg, Germany.

2021 Poster presentation, NCCR SwissMAP Site Visit 2021, Online.

2021 Contributed talk, Student Workshop on Integrability, Online.

2020 Invited talk, Statistical Physics and Low-Dimensional Physics 2020, Pont-à-Mousson, France.

2020 Seminar talk, Faculty of Mathematics and Physics, University of Ljubljana, Slovenia.

2019 Lecture, Dep. of Mathematics, University of Tübingen, Germany.

2019 Seminar talk, Dep. of Mathematics, University of Tübingen, Germany.

2019 Contributed talk, Quantum Transport and Universality, Università degli Studi Roma Tre, Rome, Italy.

2019 Seminar talk, Dep. of Mathematics, Ludwig Maximilian University of Munich, Germany.

2019 Contributed talk, Student Workshop on Integrability, UC Louvain, Louvain-la-Neuve, Belgium.

2018 Contributed talk, XIX International Congress on Mathematical Physics, Montreal, Canada.

2018 Contributed talk, Mathematical Challenges in Quantum Mechanics, Sapienza – Università di Roma, Rome, Italy.

2017 Invited talk, Physics@KTH Conference, Stockholm, Sweden.

2017 Contributed talk, 117th Statistical Mechanics Conference, Rutgers University, New Jersey, USA.

2016 Contributed talk, Mathematical Challenges in Quantum Mechanics, Bressanone, Italy.

2015 Seminar talk, Dep. of Physics, University of Geneva, Switzerland.

2015 Contributed talk, XVIII International Congress on Mathematical Physics, Young Researcher's Symposium, Santiago, Chile.

NATIONAL AND INTERNATIONAL AWARDS AND ACCOLADES FOR RESEARCH ACTIVITY

(Specify award, date, issuing organisation, etc.)

2022 Institute of Physics (IOP), 2021 Outstanding Reviewer Award
 Link: <https://publishingsupport.iopscience.iop.org/questions/journal-physics-mathematical-theoretical-2021-reviewer-awards/>

2021 Institute of Physics (IOP), Trusted Reviewer

QUALIFICATIONS UNDER ART.24, PARAGRAPH 3.a AND 3.b, OF LAW No.240/2010 OF 30 DECEMBER 2010

(Specify whether it is a type A or type B contract, University, contract effective date and end date, etc.)

None

SCIENTIFIC PRODUCTION

SCIENTIFIC PUBLICATIONS

(For each publication, specify the following: authors' names, full title, publisher, date and place of publication, ISBN/ISSN/DOI or equivalent code)

Note: Authors are in **alphabetical** order in all my journal papers, except in [1].

Journal papers (refereed) that are attached to this application:

[1] B. Oblak, B. Lapierre, **P. Moosavi**, J.-M. Stéphan, and B. Estienne,
Anisotropic quantum Hall droplets,
Phys. Rev. X **14**, 011030 (2024).
Published: February 27, 2024
DOI: 10.1103/PhysRevX.14.011030
Link: <https://doi.org/10.1103/PhysRevX.14.011030>

[2] **P. Moosavi**,
Inhomogeneous conformal field theory out of equilibrium,
Ann. Henri Poincaré **25**, 1083 (2024).
Published (online): December 31, 2021
DOI: 10.1007/s00023-021-01118-0
Link: <https://doi.org/10.1007/s00023-021-01118-0>

[3] **P. Moosavi**,
Exact Dirac-Bogoliubov-de Gennes dynamics for inhomogeneous quantum liquids,
Phys. Rev. Lett. **131**, 100401 (2023).
Published: September 6, 2023
DOI: 10.1103/PhysRevLett.131.100401
Link: <https://doi.org/10.1103/PhysRevLett.131.100401>

[4] S. Datta, B. Lapierre, **P. Moosavi**, and A. Tiwari,
Marginal quenches and drives in Tomonaga-Luttinger liquids,
SciPost Phys. **14**, 108 (2023).
Published: May 11, 2023
DOI: 10.21468/SciPostPhys.14.5.108
Link: <https://doi.org/10.21468/SciPostPhys.14.5.108>

[5] M. Gluza, **P. Moosavi**, and S. Sotiriadis,
Breaking of Huygens-Fresnel principle in inhomogeneous Tomonaga-Luttinger liquids,
J. Phys. A: Math. Theor. **55**, 054002 (2022).
Published: January 13, 2022
DOI: 10.1088/1751-8121/ac39cc
Link: <https://doi.org/10.1088/1751-8121/ac39cc>

[6] B. Lapierre and **P. Moosavi**,
Geometric approach to inhomogeneous Floquet systems,
Phys. Rev. B **103** 224303 (2021).
Published: June 8, 2021
DOI: 10.1103/PhysRevB.103.224303
Link: <https://doi.org/10.1103/PhysRevB.103.224303>

[7] L. Fresta and **P. Moosavi**,
Approaching off-diagonal long-range order for 1+1-dimensional relativistic anyons,

Phys. Rev. B **103**, 085140 (2021).
Published: February 26, 2021
DOI: 10.1103/PhysRevB.103.085140
Link: <https://doi.org/10.1103/PhysRevB.103.085140>

[8] E. Langmann and **P. Moosavi**,
Diffusive heat waves in random conformal field theory,
Phys. Rev. Lett. **122**, 020201 (2019).
Published: January 18, 2019
DOI: 10.1103/PhysRevLett.122.020201
Link: <https://doi.org/10.1103/PhysRevLett.122.020201>

[9] K. Gawedzki, E. Langmann, and **P. Moosavi**,
Finite-time universality in nonequilibrium CFT,
J. Stat. Phys. **172**, 353 (2018).
Published (online): March 28, 2018
DOI: 10.1007/s10955-018-2025-x
Link: <https://doi.org/10.1007/s10955-018-2025-x>

[10] E. Langmann, J. L. Lebowitz, V. Mastropietro, and **P. Moosavi**,
Time evolution of the Luttinger model with nonuniform temperature profile,
Phys. Rev. B **95**, 235142 (2017).
Published: June 23, 2017
DOI: 10.1103/PhysRevB.95.235142
Link: <https://doi.org/10.1103/PhysRevB.95.235142>

[11] E. Langmann, J. L. Lebowitz, V. Mastropietro, and **P. Moosavi**,
Steady states and universal conductance in a quenched Luttinger model,
Commun. Math. Phys. **349**, 551 (2017).
Published (online): May 20, 2016
DOI: 10.1007/s00220-016-2631-x
Link: <https://doi.org/10.1007/s00220-016-2631-x>

[12] E. Langmann and **P. Moosavi**,
Construction by bosonization of a fermion-phonon model,
J. Math. Phys. **56**, 091902 (2015).
Published (online): September 18, 2015
DOI: 10.1063/1.4930299
Link: <https://doi.org/10.1063/1.4930299>

Journal papers (refereed) that are not attached to this application:

[13] J. Hoppe and **P. Moosavi**,
Stability of the classical catenoid and Darboux-Pöschl-Teller potentials,
Math. Phys. Anal. Geom **25**, 28 (2022).
Published: October 29, 2022
DOI:10.1007/s11040-022-09437-2
Link: <https://doi.org/10.1007/s11040-022-09437-2>

[14] **P. Moosavi**,
Emergence of generalized hydrodynamics in the non-local Luttinger model,
SciPost Phys. **9**, 037 (2020).
Published: September 11, 2020
DOI: 10.21468/SciPostPhys.9.3.037
Link: <https://doi.org/10.21468/SciPostPhys.9.3.037>

Date

11/04/2024

Place

Zurich