# Curriculum vitae

# Rouven Frassek

http://www.ihes.fr/~/frassek

E-mail: rfrassek@mailbox.org Mobile: +49-157-85 885 469 Date of Birth: 10/04/1984

Positions

2018–2019 Postdoctoral Researcher

Max Planck Institute for Mathematics (MPIM), Bonn, Germany

2016–2018 Postdoctoral Researcher

Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France

2013–2016 Early Stage Researcher

Department of Mathematical Sciences of Durham University, Durham, UK

EDUCATION

2010–2014 Research doctorate (PhD)

Humboldt University of Berlin and Albert-Einstein-Institute, Germany.

Final year at Durham University, United Kingdom

2004–2010 Diploma studies in Physics

2007–2010 Humboldt University of Berlin, Germany

2006–2007 University of Vienna, Austria 2004–2006 Hamburg University, Germany

Degrees Obtained

**Doctor Rerum Naturalium** in Theoretical Physics

Thesis Q-operators, Yangian invariance and the quantum inverse scattering method

Advisor Prof. Dr. Matthias Staudacher

Institution Albert-Einstein-Institute and Humboldt University, Germany.

Date 28. November 2014

**Diploma** in Physics

Thesis Superprotected operators in the AdS/CFT correspondence

Advisor Dr. Nadav Drukker and Prof. Dr. Jan Plefka Institution Humboldt University of Berlin, Germany.

Date 24. February 2010

AWARDED FELLOWSHIPS

Nov. 2018-Oct. 2019 Max Planck Institute for Mathematics – Individual Research Grant

Nov. 2013–Oct. 2016 Marie Curie-Sklodowska – Early Stage Research fellowship

Apr. 2010–Oct. 2013 International Max Planck Research School, PhD fellowship

Teaching Activities

Tutorials Group Theory, Michaelmas term 2015, Durham University

Tutorials Standard Model, Michaelmas term 2014, Durham University

Tutorials Group theory, Michaelmas term 2014, Durham University

Tutorials Single Math A, Easter term 2014, Durham University

Exercises Linear Algebra and Analytic Geometry, Winter term 2012, Humboldt University

Tutorials Mathematical Foundations, Winter term 2011, Humboldt University

# Organisation of Scientific Meetings

2015 Organising committee, Young researchers integrability school, Durham, UK

2018 Local organising committee, Driving solution for Science in Business, Saclay, FR

## Professional Services

Referee for - Journal of Physics A

- Journal of High Energy Physics

Guest editor for - Special Issue in Journal of Physics A

An integrability primer for the gauge-gravity correspondence,

J. Phys. A: Math. Theor. 49 (2016) 320301

### Institutional Responsibilities

Oct. 2015 - Nov. 2016 Board of Studies (Postdoctoral representative)

Department of Mathematical Sciences, Durham

Oct. 2014 - Nov. 2016 Organisation of local HEP seminar, Durham

Oct. 2013 - Apr. 2014 Organisation of HEP journal club, Durham

May 2014 - Jun. 2014 Organisation of an integrability discussion group, Durham

## Memberships of Scientific Societies

- Member of the Marie Curie Alumni Association (MCAA)
- Member of the Deutsche Physikalische Gesellschaft (DPG)

#### SOFT SKILL TRAININGS

- Career development training by Sanja Stevic at DESY, Hamburg
- GATIS outreach workshop at Filmstudios Babelsberg in Potsdam
- Presentation skills workshop by Elena Kaufman at DESY, Hamburg
- Writing skills workshop by Annelie Wendeberg at DESY, Hamburg
- Science communication workshop by SISSA Medialab in London

## Major Collaborations

- Vasily Pestun (Integrable models and supersymmetric gauge theories), Institut des hautes études scientifiques, France
- Matthias Staudacher ( $\mathcal{N}=4$  super Yang-Mills theory and Q-operators), Humboldt Universiy of Berlin, Germany
- Vladimir Bazhanov (Integrable models) Australian National University, Australia

## Talks at Conferences and Workshops

- Sep. 2018 Baxter Q-operators and some new solutions to the Yang-Baxter equation, Recent Advances in Quantum Integrable Systems (RAQIS)
  Annecy, France
- Oct. 2017 Representations of Yangians and Baxter Q-operators, Paris postdoc welcome day, IHES, France
- Nov. 2015 Q-operators for closed and open spin chains, North British Mathematical Physics Seminar, Durham University, United Kingdom
- Jun. 2014 Q-operator construction for rational homogeneous closed spin-chains, Finite-size Technology in Low Dimensional Quantum Systems (VII), Eötvös Loránd University, Hungary
- Apr. 2014 Bethe ansatz for Yangian invariants: Towards scattering amplitudes, Integrable Structures in Scattering Amplitudes, Durham University, United Kingdom
- Mar. 2014 Bethe ansatz for Yangian invariants: Towards scattering amplitudes, North British Mathematical Physics Seminar, Heriot-Watt University Edinburgh, United Kingdom
- Aug. 2013 Bethe ansatz for Yangian invariants: Towards scattering amplitudes, Integrability in Gauge and String Theory, Utrecht University, Netherlands
- Aug. 2012 From Q-operators to local charges, International Congress in Mathematical Physics (YRS), Aalborg, Denmark

## Invited Seminars

- $\begin{array}{ccc} \text{Mar. 2018} & \text{Baxter Q-operators for rational spin chains,} \\ & \text{ENS Lyon, France} \end{array}$
- Nov. 2017 On-shell diagrams from integrability, University of Freiburg, Germany
- Nov. 2016 Q-operators for the open Heisenberg chain, IPhT, CEA-Saclay, France
- Oct. 2016 Q-operators for the open Heisenberg chain, University of York, United Kingdom
- Mar. 2016 Q-operators for the open Heisenberg chain, Humboldt University of Berlin, Germany
- Mar. 2016 Q-operators for the open Heisenberg chain, Heriot-Watt University Edinburgh, United Kingdom
- Feb. 2016 Q-operators for the open Heisenberg chain, Niels Bohr Institute Copenhagen, Denmark
- Feb. 2016 Q-operators for the open Heisenberg chain, University of Leeds, United Kingdom
- Jan. 2016 Q-operators for the open Heisenberg chain, University of Wuppertal, Germany
- Mar. 2015 Spin chains, Q-operators and the Bethe ansatz, University of Birmingham, United Kingdom

- Feb. 2015 Q-operator construction for rational closed spin chains, University of York, United Kingdom
- Nov. 2013 Bethe Ansatz for Yangian invariants: Towards Scattering Amplitudes, Durham University, United Kingdom
- Jun. 2013 Yangian invariants, spin-chains and the algebraic Bethe ansatz, IPhT, CEA-Saclay, France
- Mar. 2013 Yangian invariants, spin-chains and the algebraic Bethe ansatz, Eötvös Loránd University, Hungary

## Posters

- Aug. 2018 Q-operators for one-loop  $\mathcal{N}=4$  super Yang-Mills theory Integrability in String and Gauge Theory, Copenhagen, Denmark
- Apr. 2018 Q-operators for one-loop  $\mathcal{N}=4$  super Yang-Mills theory Workshop on higher-point correlation functions and integrable AdS/CFT, Dublin, Ireland
- Aug. 2012 From Q-Operators to Local Charges Integrability in Gauge and String Theory, Zürich, Switzerland