# Søren Gammelgaard

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**CURRENT EMPLOYMENT**  Università degli Studi di Ferrara, Ferrara, Italy Post-doctoral researcher (Assegnista di Ricerca)

Dec 2024 -

**PREVIOUS EMPLOYMENT**  Scuola Internazionale Superiore di Studi Avanzati, Via Bonomea 265, 34136 Trieste, Italy

Post-doctoral researcher (Assegnista di Ricerca)

Nov 2022 - Nov 2024

#### **EDUCATION**

#### University of Oxford, Oxford, United Kingdom

DPhil in Mathematics

Oct 2018 – Sep 2022

- Thesis: Quiver Varieties and Moduli Spaces of Sheaves on Singular Surfaces
- Supervisor: Professor Balázs Szendrői
- · Focus: Quiver varieties, singular surfaces, moduli spaces.

#### University of Oslo, Oslo, Norway

MSc in Mathematics

Aug 2016 – Jun 2018

- Thesis: Cubic hypersurfaces, their Fano schemes, and special subvarieties
- Supervisor: Professor John Christian Ottem
- · Focus: Cubic hypersurfaces, Fano schemes, Chow rings.
- · Grade awarded: A.

BSc in Mathematics

Aug 2014 – Jun 2016

· Average grade: A.

#### EXTERNAL TALKS GAeLXXVII (Poster), Bucharest, Jun 2019

UCL/KCL Junior Geometry Seminar London, Jan 2022

**Algebraic Geometry Seminar, University of Oslo**, Mar 2022

Algebraic Geometry Seminar, KTH Royal Institute of Technology Stockholm, Apr 2022 Symplectic singularities in geometry and representation theory, CIRM, Marseille, Apr 2022

A day of geometry in Glasgow, University of Glasgow, Aug 2022

Quiver Representations, Quiver Varieties and Combinatorics, Università di Bologna, Jun 2023

Invited speaker, Budapest University of Technology and Economics, Oct 2023

INTERNAL TALKS Oxford Geometry and Analysis seminar, Oxford, United Kingdom, Apr 2022 SISSA Algebraic Geometry seminar, SISSA Trieste, Italy, Dec 2022, May 2024

#### **PUBLICATIONS**

- [1] A. Craw, S. Gammelgaard, Á. Gyenge, and B. Szendrői, "Punctual Hilbert schemes for Kleinian singularities as quiver varieties," Algebraic Geometry, vol. 8, issue 6, pp. 680-704, Nov 2021. Available here.
- [2] A. Craw, S. Gammelgaard, Á. Gyenge, and B. Szendrői, "Quot Schemes for Kleinian Orbifolds," SIGMA (Symmetry, Integrability and Geometry: Methods and Applications), vol. 17, no. 099, Nov 2021. Available here.
- [3] S. Gammelgaard, "Quiver Varieties and Framed Sheaves on Compactified Kleinian Singularities", Journal of Algebra and its Applications, Aug 2024. Available here. Available as preprint here.

#### **PREPRINTS**

"Moduli spaces of framed sheaves on compactified Kleinian singularities", available here, submitted.

"Noncommutative projective partial resolutions and quiver varieties", coauthored with Á. Gyenge, available here, submitted.

An appendix to "Euler characteristics of affine ADE Nakajima quiver varieties via collapsing fibers", coauthored with L. Bertsch, Á. Gyenge, and B. Szendrői, available here, submitted.

### **SCHOLARSHIPS**

Aker Scholarship,

2018 - 2022

Scholarship with stipend for advanced graduate studies at a top international university.

SISSA Mathematical Fellowship,

2022 - 2024

Scholarship for post-doctoral research at SISSA (Scuola Internazionale Superiore di Studi Avanzati)

#### WORK EXPERIENCE

#### University of Oxford, Oxford, United Kingdom

- Several positions as Teaching Assistant and Tutor:
  - •Oct 2018 –Dec 2018: TA in Galois Theory.
  - •Oct 2019 -Dec 2019: TA in Galois Theory.
  - •Jan 2020 –Mar 2020: TA in Commutative Algebra.
  - •Jan 2021 -Mar 2021: TA in Algebraic Curves.
  - •Oct 2021 –Dec 2021: TA in Homological Algebra.
  - •Jan 2022 –Mar 2022: Tutor in Algebraic Curves.

## St Peter's College, University of Oxford, Oxford, United Kingdom

■ Tutor in Topology. Jan 2020 – Mar 2020

#### **Department of Mathematics, University of Oslo, Oslo, Norway**

Several positions as Teaching Assistant, in Calculus and Linear Algebra.
 Aug 2015 – Dec 2017

Sommerskolen Oslo (Oslo Summer School), Oslo, Norway

• Taught mathematics at a summer school for high school students.

2016 - 2018

#### OTHER ACTIVITIES

#### Taruithorn, the Oxford Tolkien Society, University of Oxford

■ Secretary Jan 2021 – Feb 2022

• Responsibility for handling correspondence, booking external speakers, administrative work.

#### Balliol College Middle Common Room, University of Oxford

■ Secretary Jun 2019– Jun 2020

• Responsibility for scheduling meetings, taking minutes, setting agendas, and handling external correspondence.

**Matematisk Ordliste** (*Mathematical Wordlist*), University of Oslo, University of Agder, Norwegian University of Science and Technology, Norwegian Language Council,

Lexicography relating to algebraic geometry

May 2019

 I documented and suggested about 250 Norwegian translations from English of scientific terms in algebraic geometry and adjacent fields of mathematics.

#### **LANGUAGES**

- Norwegian, Danish: Native languages.
- English: Fluent.
- Italian: Advanced.
- French: Advanced (reading); basic (speaking, writing).
- Swedish: Advanced.
- Japanese: Basic.

DIGITAL SKILLS LETEX, GAP, Macaulay2, MATLAB, Python, Java, Microsoft Office, LibreOffice, Ubuntu.

**OTHER INTERESTS** Linguistics, cross-country skiing, fantasy literature, swimming.

OTHER

Contestant for Norway at the 2014 International Mathematical Olympiad.

INFORMATION

Danish citizen.

#### REFERENCES

#### Balázs Szendrői

**Professor of Mathematics** 

Department of Mathematics, Universität Wien Oskar-Morgenstern-Platz 1, 1090 Wien, Austria balazs.szendroi@univie.ac.at • +43-1-4277-50482

#### Alastair Craw

**Professor of Mathematics** 

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Claverton Down,

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# ■ Ugo Bruzzo

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# ■ John Christian Ottem

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