

# Søren Gammelgaard

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## CURRENT EMPLOYMENT

**Scuola Internazionale Superiore di Studi Avanzati**, Via Bonomea 265, 34136 Trieste, Italy  
Post-doctoral researcher (Assegnista di Ricerca)

## EDUCATION

**University of Oxford**, Oxford, United Kingdom

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

Oct 2018 – Sep 2022

**University of Oslo**, Oslo, Norway

- MSc in Mathematics  
• 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  
• Average grade: A.

Aug 2016 – Jun 2018

Aug 2014 – Jun 2016

## CONFERENCES AND EXTERNAL TALKS

**GAeLXXVII**, Bucharest, Jun 2019

- Presented a poster about my work on Hilbert schemes of singular surfaces.

**UCL/KCL Junior Geometry Seminar** London, Jan 2022

- I gave a talk about my work on moduli spaces attached to Kleinian singularities.

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

- I gave a talk about Hilbert schemes of Kleinian singularities and quiver varieties.

**Algebraic Geometry Seminar, KTH Royal Institute of Technology** Stockholm, Apr 2022

- I spoke about my work on moduli spaces attached to Kleinian singularities.

**Symplectic singularities in geometry and representation theory**, CIRM, Marseille, Apr 2022

- At this research school, I again gave a talk about my work on moduli spaces attached to Kleinian singularities.

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

- Talked about the work in my doctoral thesis.

**Quiver Representations, Quiver Varieties and Combinatorics**, Jun 2023

- I talked about quiver varieties and the geometry of Hilbert schemes.

## 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](#).

## PREPRINTS

“Quiver Varieties and Framed Sheaves on Compactified Kleinian Singularities”, available [here](#), submitted.  
“Moduli spaces of framed sheaves on compactified Kleinian singularities”, available [here](#).

## SCHOLARSHIP

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

2018 – 2022

## 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.

	<ul style="list-style-type: none"> <li>•Jan 2021 –Mar 2021: TA in Algebraic Curves.</li> <li>•Oct 2021 –Dec 2021: TA in Homological Algebra.</li> <li>•Jan 2022 –Mar 2022: Tutor in Algebraic Curves.</li> </ul>	
	<b>St Peter’s College, University of Oxford</b> , Oxford, United Kingdom	
	<ul style="list-style-type: none"> <li>▪ Tutor in Topology.</li> </ul>	Jan 2020 – Mar 2020
	<b>Department of Mathematics, University of Oslo</b> , Oslo, Norway	
	<ul style="list-style-type: none"> <li>▪ Several positions as Teaching Assistant, in Calculus and Linear Algebra.</li> </ul>	Aug 2015 – Dec 2017
	<b>Sommerskolen Oslo</b> ( <i>Oslo Summer School</i> ), Oslo, Norway	
	<ul style="list-style-type: none"> <li>▪ Taught mathematics at a summer school for high school students.</li> </ul>	2016 – 2018
<b>OTHER ACTIVITIES</b>	<b>Taruithorn, the Oxford Tolkien Society</b> , University of Oxford	
	<ul style="list-style-type: none"> <li>▪ Secretary</li> <li>• Responsibility for handling correspondence, booking external speakers, administrative work.</li> </ul>	Jan 2021 – Feb 2022
	<b>Balliol College Middle Common Room</b> , University of Oxford	
	<ul style="list-style-type: none"> <li>▪ Secretary</li> <li>• Responsibility for scheduling meetings, taking minutes, setting agendas, and handling external correspondence.</li> </ul>	Jun 2019– Jun 2020
	<b>Matematisk Ordliste</b> ( <i>Mathematical Wordlist</i> ), University of Oslo, University of Agder, Norwegian University of Science and Technology, Norwegian Language Council,	
	<ul style="list-style-type: none"> <li>▪ Lexicography relating to algebraic geometry</li> <li>• I documented and suggested about 250 Norwegian translations from English of scientific terms in algebraic geometry and adjacent fields of mathematics.</li> </ul>	May 2019
<b>LANGUAGES</b>	<ul style="list-style-type: none"> <li>▪ Norwegian, Danish: Native languages.</li> <li>▪ English: Fluent.</li> <li>▪ Italian, French: Advanced (reading); basic (speaking, writing).</li> <li>▪ Swedish: Advanced.</li> <li>▪ Japanese: Basic.</li> </ul>	
<b>DIGITAL SKILLS</b>	L <sup>A</sup> T <sub>E</sub> X, Macaulay2, MATLAB, Python, Java, Microsoft Office, LibreOffice, Ubuntu.	
<b>INTERESTS</b>	Linguistics, cross-country skiing, fantasy literature, swimming.	
<b>OTHER INFORMATION</b>	Contestant for Norway at the 2014 International Mathematical Olympiad. Danish citizen.	
<b>REFERENCES</b>	<ul style="list-style-type: none"> <li>▪ <b>Balázs Szendrői</b> Professor of Mathematics Department of Mathematics, Universität Wien Oskar-Morgenstern-Platz 1, 1090 Wien, Austria balazs.szendroi@univie.ac.at • +43-1-4277-50482</li> <li>▪ <b>Alastair Crow</b> Professor of Mathematics Department of Mathematical Sciences, University of Bath, Claverton Down, Bath BA2 7AY, United Kingdom. a.crow@bath.ac.uk • +44 (0) 1225 385327</li> <li>▪ <b>Ugo Bruzzo</b> Professor Scuola Internazionale Superiore di Studi Avanzati, Via Bonomea 265 34136 Trieste, Italy bruzzo@sissa.it</li> </ul>	

▪ **John Christian Ottem**

Professor

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