CURRICULUM VITAE

Søren Galatius

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PERSONAL DATA

Born August 1, 1976 in Randers, Denmark. Danish citizen.

EDUCATION

PhD in Mathematics, Aarhus University, 2004 Cand. Scient. (MSc), Aarhus University, 2002

EMPLOYMENT

Professor, Copenhagen University (4/16 - present)

Professor, Stanford University (9/11 - 9/2018),

Associate Professor, Stanford University (9/08 - 8/11)

Assistant Professor, Stanford University (9/06 - 8/08)

Szegő Assistant Professor, Stanford University (9/04 - 8/06)

SELECTED INVITED LECTURES

MIT Talbot Workshop Mentor, Texas, 2019

William J. Spencer Lecture, Kansas State, 2017

Ordway Lectures, Minnesota, 2016

ICM Invited speaker, Korea, 2014

Adem Lectures, Mexico City, Mexico, 2013

Plenary speaker, Young Topologists meeting, Copenhagen, 2012

Colloquium, Yale University, 11/10

Colloquium, Nagoya, Japan, 7/09

European Congress of Mathematics, Amsterdam, 7/08

Plenary talk, AMS regional, Baton Rouge, 3/08

AWARDS AND HONORS

DNRF Center (GeoTop) co-PI, 2020-

Eliteforsk Prize 2017

ERC Consolidator Grant 2016–2021

NSF grants DMS-0505740 (2005-2008), DMS-0805843 (2008-2011), DMS-

1105058 (2011–2014), DMS-1405001 (2014–2017)

NSF conference grants DMS-1430456 (2014), DMS-1619698 (2016)

Royal Danish Academy of Sciences, elected foreign member (2013)

Featured in AMS-Current Events Bulletin, New Orleans 2011

Royal Danish Academy of Sciences "silver medal" (2010)

OTHER ACADEMIC FUNCTIONS

Mentor, STAGOSAUR Summer School 2020, Online, 2020

Coorganizer, Arbeitsgemeinschaft, Oberwolfach, 2003 and 2021

Coorganizer, Topologie, Oberwolfach, Germany, 2020

Coorganizer, Patterns in Cohomology of Moduli Spaces, Oxford, 2019

Coorganizer, Moduli and Traces, Copenhagen, Denmark, 2017

Coorganizer, Topology of Manifolds, Lisbon, Portugal, 2016

Coorganizer, Hausdorff Trimester, Bonn, Germany, 2015

Coorganizer, Algebraic Topology: Applications and New Directions, Stanford 7/12

Principal scientific organizer, WCATSS Summer School, Oregon 2010.

Coorganizer, Homotopy of Moduli Spaces, Oberwolfach, 10/03

Coorganizer, Topology of Moduli Spaces, Stanford, 1/07

Coorganizer, Loops, Strings and Moduli Spaces, Tianjin, China, 8/09

Coorganizer, Stanford topology seminar

Editor of International Mathematical Research Notices, 2016–2019

Editor of Transactions of the AMS, 2013-2016

Editor of Memoirs of the AMS, 2013-2016

Editor for Algebraic and Geometric Topology, 2010–2019

Director of Stanford Math Research Center, 2015–2018

PHD STUDENTS

4 current students

Mikala Ørsnes Jansen, Copenhagen, 2021

Jens Reinhold, Stanford, 2019

Gergely Szűcs, Stanford, 2018

Alexander Kupers, Stanford, 2016

Sam Nariman, Stanford, 2015

Ilya Grigoriev, Stanford, 2013

Nisan Stiennon, Stanford, 2013

Man Chuen Cheng, Stanford, 2011

PUBLICATIONS

- 1. M. Chan, S. Galatius, S. Payne: Tropical curves, graph homology, and top weight cohomology of \mathcal{M}_g . Accepted in J. Amer. Math. Soc. Preprint, arXiv:1805.10186.
- 2. S. Galatius, G. Szűcs: *The equivariant cobordism category*. J. Topol. **14** (2021), no. 1, 215–257.
- 3. M. Chan, S. Galatius, S. Payne: Topology of moduli spaces of tropical curves with marked points. Accepted in Facets of Algebraic Geometry: Volume in Honour of William Fulton's 80th Birthday. Preprint, arXiv:1903.07187.
- 4. S. Galatius: Lectures on invertible field theories, exercises and solutions joint with A. Debray and M. Palmer. Eds. D. Freed, U. Tillmann. Accepted in IAS/Park City Mathematics Series.
- 5. S. Galatius, A. Kupers, O. Randal-Williams: E_2 -cells and mapping class groups. Publ. Math. Inst. Hautes Études Sci. **130** (2019), 1–61.
- 6. S. Galatius, O. Randal-Williams: *Operations on stable moduli spaces*. Research in the Mathematical Sciences, **7** (2020), E9.
- 7. S. Galatius, O. Randal-Williams: *Moduli spaces of manifolds: a user's guide*, chapter in *Handbook of Homotopy Theory*, ed. H. Miller, CRC Press, 2020.
- 8. S. Galatius, A. Venkatesh: *Derived deformation rings*. Adv. Math. **327** (2018), 470–623.
- 9. S. Galatius, O. Randal-Williams: Homological stability for moduli spaces of high dimensional manifolds I. J. Amer. Math. Soc. 31 (2018), no. 1, 215–264.
- 10. S. Galatius, O. Randal-Williams: Homological stability for moduli spaces of high dimensional manifolds II. Ann. of Math. **186** (2017), no. 1, 127–204.
- S. Galatius, I. Grigoriev, O. Randal-Williams: Tautological rings for high dimensional manifolds. Compositio Math. 153, no. 4 (2017), 851–866.
- 12. S. Galatius, O. Randal-Williams: Abelian quotients of mapping class groups of highly connected manifolds. Math. Ann., **365** (2016), no. 1–2, 857–879.
- 13. S. Galatius: Moduli spaces of manifolds, in Proceedings of the International Congress of Mathematicians, Vol. II, 1197–1217, Kyung Moon Sa, Seoul, 2014.
- S. Galatius, O. Randal-Williams: Detecting and realising characteristic classes of manifold bundles, in Algebraic Topology: Applications and New Directions, eds. S. Galatius, D. P. Sinha, U. Tillmann 99– 110, Contemp. Math., 620, Amer. Math. Soc., Providence, RI, 2014.

- 15. S. Galatius, O. Randal-Williams: Stable moduli spaces of high dimensional manifolds. Acta Math. 212 (2014), no. 2, 257–377.
- S. Galatius: Lectures on the Madsen-Weiss Theorem, in Moduli Spaces of Riemann Surfaces, eds. B. Farb, R. Hain, E. Looijenga. IAS/Park City Mathematics Series 20 (2013).
- 17. S. Galatius, Ya. Eliashberg, N. Mishachev: *Madsen-Weiss for geometrically minded topologists*. Geom. Topol. **15** (2011), no. 1, 411–472.
- 18. S. Galatius: Stable homology of automorphism groups of free groups. Ann. of Math. 173 (2011), no. 2, 705–768.
- 19. S. Galatius, O. Randal-Williams: Monoids of moduli spaces of manifolds. Geom. Topol. 14 (2010), no. 3, 1243-1302.
- 20. R. Cohen, S. Galatius, N. Kitchloo: Universal moduli spaces of surfaces with flat connections and cobordism theory. Adv. Math. 221 (2009), no. 4, 1227–1246.
- 21. S. Galatius, I. Madsen, U. Tillmann, M. Weiss: *The homotopy type of the cobordism category*. Acta Math. **202** (2009), no. 2, 195–239.
- 22. S. Galatius: Secondary characteristic classes of surface bundles. Algebraic & Geometric Topology 9 (2009) 293-303
- S. Galatius, I. Madsen, U. Tillmann: Divisibility of the stable Miller– Morita–Mumford classes, J. Amer. Math. Soc. 19 (2006), no. 4, 759– 779.
- 24. S. Galatius: Mod 2 homology of the stable spin mapping class group, Math. Ann. **334** (2006), 439 455.
- 25. S. Galatius: Mod p homology of the stable mapping class group, Topology 43 (2004), 1105–1132.

PREPRINTS

- 1. T. Feng, S. Galatius, A. Venkatesh: *The Galois action on symplectic K-theory*. arXiv:2007.15078.
- 2. S. Galatius, A. Kupers, O. Randal-Williams: E_{∞} -cells and general linear groups of infinite fields. arXiv:2005.05620.
- 3. M. Chan, C. Faber, S. Galatius, S. Payne: The S_n -equivariant top weight Euler characteristic of $\mathcal{M}_{q,n}$. arXiv:1904.06367.
- 4. S. Galatius, A. Kupers, O. Randal-Williams: E_{∞} -cells and general linear groups of finite fields. arXiv:1810.11931.
- 5. S. Galatius, A. Kupers, O. Randal-Williams: Cellular E_k -algebras. arXiv:1805.07184.

PROCEEDINGS EDITED

 Algebraic Topology: Applications and New Directions, eds. S. Galatius, D. P. Sinha, U. Tillmann, Contemp. Math., 620, Amer. Math. Soc., Providence, RI, 2014.

CURRENT RESEARCH FUNDING

- \bullet DNRF Center GeoTop, 2020. Co-PI. DKK 60,000,000.
- \bullet ERC Consolidator, 2016–2021. EUR 1,991,061.