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Employment

- 2022– **Senior Lecturer**, *University of Gothenburg*, Sweden, Jan 2022 –
- 2018–2021 **Associate Senior Lecturer**, *University of Gothenburg*, Sweden, Jan 2018 – Dec 2021
- 2017 **Guest Lecturer**, *University of Gothenburg*, Sweden, Jun 2017 – Dec 2017
- 2016–2017 **Postdoctoral Researcher**, *University of Gothenburg*, Sweden, Jun 2016 – May 2017
Supported by the Swedish Research Council.
- 2013–2016 **Postdoctoral Researcher**, *University of Wuppertal*, Germany, Dec 2013 – May 2014 and Dec 2014 – May 2016
Supported by the Swedish Research Council. Employed by the University of Gothenburg, Sweden
- 2014 **Research Associate**, *University of Adelaide*, Australia, Jun 2014 – Nov 2014
- 2013 **Temporary Lecturer**, *Chalmers University of Technology*, Sweden, Sep 2013 – Nov 2013
- 2008–2013 **Doctoral Student in Mathematics**, *Chalmers University of Technology*, Sweden, Aug 2008 – Aug 2013
Advisor: Mats Andersson

Degrees and titles

- Oct 2018 **Docent in Mathematics**, *University of Gothenburg*, Sweden
- Feb 2013 **Doctor of Philosophy in Mathematics**, *Chalmers University of Technology*, Sweden
Thesis: *Residue currents on singular varieties*.
Opponent: Alexander Rashkovskii
- Jun 2010 **Licentiate degree in Mathematics**, *Chalmers University of Technology*, Sweden
Thesis: *Residue currents on analytic spaces*.
Opponent: Alain Yger

Jun 2008 **Master of science in Mathematics**, *University of Gothenburg*, Sweden, 2004–2008

The mathematics program at the University of Gothenburg
Master thesis: *Integral representations of weakly and strongly holomorphic functions*, advisor: Mats Andersson

Grants

- 2017 Starting grant from the Swedish Research Council, *Connections between analysis and topology in the presence of singularities*, 4 years
- 2013 International postdoc grant from the Swedish Research Council, *Analytic methods and tools in the study of singular varieties*, 3 years

Publications

- 2024 *An explicit isomorphism of different representations of the Ext functor using residue currents*, with Jimmy Johansson, Ark. Mat., accepted for publication, available at arXiv:2109.00480
- 2023 *Norm estimates for the $\bar{\partial}$ -equation on a non-reduced space*, with Mats Andersson, J. Geom. Anal. 33 (2023), no. 7, Paper No. 237, 37 pp.
- 2022 *Chern currents of coherent sheaves*, with Elizabeth Wolcan, Épijournal Géom. Algébrique, 6 (2022), Art. 14, 26 pp.
- 2022 *Chern forms of hermitian metrics with analytic singularities on vector bundles*, with Hossein Raufi, Martin Sera and Elizabeth Wolcan, Indiana Univ. Math. J. 71 (2022), no. 1, 153–189.
- 2021 *Residue currents and cycles of complexes of vector bundles*, with Elizabeth Wolcan, Ann. Fac. Sci. Toulouse Math. 30 (2021), no. 5, 961–984
- 2020 *On a mixed Monge-Ampère operator for quasisubharmonic functions with analytic singularities*, with Martin Sera and Elizabeth Wolcan, Bull. Lond. Math. Soc. 52 (2020), no. 1, 77–93.
- 2020 *Estimates for the $\bar{\partial}$ -equation on canonical surfaces*, with Mats Andersson, Jean Ruppenthal, Håkan Samuelsson Kalm and Elizabeth Wolcan, J. Geom. Anal. 30 (2020), no. 3, 2974–3001.
- 2019 *A comparison formula for residue currents*, Math. Scand. 125 (2019), no. 1, 39–66.

- 2019 *Explicit versions of the local duality theorem in \mathbb{C}^n* , Illinois J. Math. 63 (2019), no. 1, 1–45.
- 2019 *The $\bar{\partial}$ -equation on a non-reduced analytic space*, with Mats Andersson, Math. Ann. 374 (2019), no. 1, 553–599.
- 2018 *Residue currents and fundamental cycles*, with Elizabeth Wolcan, Indiana Univ. Math. J., 67 (2018), no. 3, 1085–1114.
- 2018 *Koppelman formulas on affine cones over smooth projective complete intersections*, with Jean Ruppenthal, Indiana Univ. Math. J., 67 (2018), no. 2, 753–780.
- 2018 *Chern forms of singular metrics on vector bundles*, with Hossein Raufi, Jean Ruppenthal and Martin Sera, Adv. Math. 326 (2018), 465–489.
- 2018 *Elementary construction of residue currents associated to Cohen-Macaulay ideals*, with Emmanuel Mazzilli, Ann. Inst. Fourier (Grenoble), 68 (2018), no. 1, 377–391.
- 2016 *Extending holomorphic maps from Stein manifolds into affine toric varieties*, with Finnur Lárusson, Proc. Amer. Math. Soc., 144 (2016), 4613–4626.
- 2016 *Koppelman formulas on the A_1 -singularity*, with Jean Ruppenthal, J. Math. Anal. Appl., 437 (2016), no. 1, 214–240.
- 2015 *Residue currents with prescribed annihilator ideals on singular varieties*, Math. Z., 279 (2015), no. 1-2, 333–358.
- 2014 *Computing residue currents of monomial ideals using comparison formulas*, with Elizabeth Wolcan, Bull. Sci. Math., 138 (2014), no. 3, 376–392.
- 2013 *On the duality theorem on an analytic variety*, Math. Ann., 355 (2013), no. 1, 215–234.
- 2013 *Various approaches to products of residue currents*, with Håkan Samuelsson, J. Funct. Anal., 264 (2013) no. 1, 118–138.
- 2012 *Residue currents associated with weakly holomorphic functions*, Ark. Mat., 50 (2012), no. 1, 135–164.

Preprints

- 2023 Baum-Bott residue currents, with Lucas Kaufmann and Elizabeth Wolcan, arXiv:2302.08887 [math.CV].
- 2020 *The $\bar{\partial}$ -equation for (p, q) -forms on a non-reduced analytic space*, with Mats Andersson, Mattias Lennartsson and Håkan Samuelsson Kalm, arXiv:2002.01797 [math.CV].

Teaching and supervision

As a lecturer and course coordinator:

- fall 2023 Single variable calculus, part 2, MMG200, University of Gothenburg
- fall 2022 Single variable calculus, part 2, MMG200, University of Gothenburg
- spring 2022 Complex Analysis in Several Variables, MMA150, University of Gothenburg
- fall 2021 Single variable calculus, part 2, MMG200, University of Gothenburg
- fall 2020 Calculus, LMA401/MVE575, Chalmers University of Technology
- spring 2020 Complex Analysis in Several Variables, MMA150, University of Gothenburg
- fall 2019 Multivariable calculus, LMA017, Chalmers University of Technology
- fall 2018 Multivariable calculus, LMA017, Chalmers University of Technology
- fall 2017 Analysis and Linear Algebra, MMGF11, part 2, University of Gothenburg
- fall 2017 Multivariable calculus, LMA017, Chalmers University of Technology
- fall 2016 Multivariable calculus, LMA017, Chalmers University of Technology
- fall 2013 Linear Algebra, MVE275, Chalmers University of Technology

Other:

- 2021– Cosupervisor of PhD student Rahim Nkuzimana
- 2021–2022 Cosupervisor of PhD student Jimmy Johansson
- 2020–2021 Supervision of Masters thesis, An argument principle for generalised point residues, Rahim Nkuzimana
- spring 2019 Supervision of Erasmus internship (similar to a bachelors thesis), The Riemann Roch theorem, joint with David Witt-Nyström
- 2019–2021 Cosupervisor of PhD student Mattias Lennartsson
- spring 2013 Supervision of bachelors thesis, Riemanns avbildningssats, Johan Karlsson and Johan Särnbratt, joint with Hossein Raufi

2008–2013 Teaching assistant and Matlab supervision in courses in linear algebra, single- and multi-variable calculus and Fourier analysis, Chalmers University of Technology

Other merits

- Member of the mathematics library committee at Chalmers / University of Gothenburg, 2020–
- Coorganizer of the colloquium at Mathematical Sciences at Chalmers / University of Gothenburg, 2017–2020
- Member of the mathematics library buying committee at Chalmers / University of Gothenburg, 2016–
- Cochairman of the PhD student council for PhD students at Mathematical Sciences at Chalmers / University of Gothenburg, 2011–2013
- Member of the recruitment committee for new PhD students in mathematics at Chalmers / University of Gothenburg, 2011 & 2012
- Coorganizer of the conference "KAUS 2011" (Komplex Analys Utan Seniorer), a conference for PhD students in complex analysis from the Nordic countries. Göteborg, January 21-23, 2011