

Laura P. Schaposnik M. (February 18, 2022)

PERSONAL INFORMATION	Department of Mathematics, University of Illinois, Chicago, IL 60607, USA	Born: 20 July, 1985 in La Plata, Argentina Email: lauraschaposnik@gmail.com https://schapos.people.uic.edu
EMPLOYMENT	Associate Professor , University of Illinois at Chicago, USA. <i>since</i> 2018 Assistant Professor , University of Illinois at Chicago, USA. 2015-2018 L.Doob. Research Assistant Prof. , University of Illinois at Urbana-Champaign, USA. 2013-2015 Wissenschaftlicher Assistent , Heidelberg University, Heidelberg, Germany 2012-2013 Stipendiary Lecturer in Mathematics , Trinity & Magdalen College, Oxford, UK. 2011-2012 Retained Lecturer in Mathematics , Hertford College, Oxford, UK. 2010-2011	
EDUCATION	University of Oxford . New College, Oxford, UK. 2008-2013 D.Phil. in Mathematics, Advisor: Prof. Nigel Hitchin. National University of La Plata . La Plata, Argentina. 2004-2008 Lic. en Matematica (MMath equiv.). Grade: 10/ 10. Advisor: Prof. Jorge Solomin. Conservatory Gilardo Gilardi . Music Conservatory, La Plata, Argentina. 2003-2007	
VISITING POSITIONS	9. Visiting Fellow, All Souls College, University of Oxford, UK. Spring 2023 8. Visiting professor, Mathematical Institute, University of Oxford, UK. Spring 2023 7. Research Professor, Mathematical Sciences Research Institute, USA. Fall 2022 6. Research Member, Mathematical Sciences Research Institute, USA. Fall 2019 5. Alexander von Humboldt fellow, Freie Universität Berlin, Germany. Summer 2019 4. Visiting Associate Professor, Simons Center for Geometry and Physics, USA. Spring 2019 3. Visiting Fellow, New College, University of Oxford, UK. Fall 2018 2. Visiting professor, Mathematical Institute, University of Oxford, UK. Fall 2018 1. Alexander von Humboldt Fellow, Freie Universität Berlin, Germany. Fall 2017	
SELECTED GRANTS AND FELLOWSHIPS SINCE 2015	8. <i>Simons Fellowship</i> . 2022-2023 7. <i>MSRI Semester</i> (Co-PI, w/ Fredrickson, Mazzeo, Mrowka, (PI) Walpuski). 2022 6. <i>NSF CAREER Award DMS 1749013</i> (PI). 2018-2023 5. <i>NSF Conference Award – “Unity of Mathematics”</i> (PI). 2021 4. <i>NSF DMS 1929915</i> (PI, w/ L. Anderson). 2019 3. <i>Simons Center for Geometry and Physics Semester</i> , (PI, w/ L. Anderson). 2019 2. <i>Alexander von Humboldt Fellowship</i> , (PI). 2017-2019 1. <i>NSF DMS 1509693 and DMS 1611835</i> (PI). 2015-2019	
MEMBERSHIPS	10. Fellow of UIC Honors College . <i>since</i> 2021 9. Member of the American Mathematical Society (AMS). <i>since</i> 2017 8. Member of the Unión Matemática Argentina (UMA). <i>since</i> 2017 7. Faculty member of the GEAR Network . <i>since</i> 2015 6. Faculty mentor for PRIMES-MIT , Massachusetts Institute of Technology. <i>since</i> 2014 5. Member of the AWM Gweneth Humphreys Award Selection Committee 2022-2025 4. Member of the Hitchin-Ngo Lab . ICMAT, Madrid, Spain 2021-2023 3. Member of the AWM Joan & Joseph Birman Prize Committee . 2019-2023 2. Co-Chair of the AMS Joint Committee on Women in Maths . (JCW). 2017-2018 1. Representative of the Association of Women in Mathematics (AWM) at JCW . 2015-2018	
Publications and preprints	See Publication file (last two pages) and ArXiv profile for some of the PDF files .	

SUPERVISION OF PHD STUDENTS	2. Hassan Babaei , (PhD Student, UIC) Thesis on mathematical physics. <i>Expected 2023</i>	
	1. Mengxue Yang , (UIC) “On generalized B -opers”. <i>January 2022</i>	
PHD AND MASTER THESIS COMMITTEES	4. Fabiola Cordero , PUC-Rio, Brazil. 2021	
	3. Juan Sebastián Numpaque , Universidad de los Andes, Colombia. 2021	
	2. Keaton Quinn and Charles Alley , University of Illinois at Chicago, USA. 2019-2020	
	1. Thesis reviewer , Roma Tre University, Italy 2019	
SUPERVISION OF RESEARCH PROJECTS	10. Grace Wang , Supervised through MIT PRIMES-USA . 2022	
	9. Sheryl Hsu , Supervised through MIT PRIMES-USA (accepted at <i>Stanford</i>). Regeneron Science Scholar 2021 ; JMM MAA Undergraduate Poster Session presenter . 2021	
	8. Vishaal Ram , Supervised through MIT PRIMES-USA (now at <i>MIT</i>). Regeneron Science Scholar 2020 ; 2020 S.-T. Yau High School Science Bronze Award . 2020	
	7. Yuyuan Luo , Supervised through MIT PRIMES-USA (now at <i>MIT</i>). JMM Outstanding Poster Presentation Award . 2019	
	6. Rinni Bhansali , Supervised through MIT PRIMES-USA (now at <i>Stanford</i>). Regeneron Scholar 2019 JHSH National Finalist 2019 ; JMM MAA session speaker . 2018	
	5. Rachana Madhukara , Kevin Ren , Anlin Zhang (High School, California). Group National Finalist in the 2017 Siemens Competition . 2017	
	4. Anlin Shang , Supervised through MIT PRIMES-USA (now at <i>Princeton</i>). JMM MAA Undergraduate Poster Session presenter . 2017	
	3. Kai-Siang Ang , Supervised through MIT PRIMES-USA (now at <i>Stanford</i>). Regeneron Science Talent Search Scholar 2017 . 2016	
	2. Jessica Li , Supervised through IGL and MIT PRIMES-USA (now at <i>Harvard</i>). Semifinalist in the 2014 Siemens Competition and Intel Competition (among others); 2014	
	1. C. Da , M. Zosky , J. Li , C. Formosa (Supervised through IGL). 2014	
AWARDS AND GRANTS 2014 - <i>present</i> (~ US\$ 1.8M)	23. BIRS Conference grant , PI, w/ Anderson, Rayan and Schafer-Nameki. 2023	
	22. BIRS Conference grant , co-PI, w/ Dumitrescu, Failde, Morales and PI Mulase. 2023	
	21. IHP: Research in Pairs (with Steven Rayan and Emanuele Macri) 2023	
	20. Simons Fellowship (PI) (US\$ 100k). 2022-2023	
	19. NSF CAREER Award DMS 1749013 : (PI) (US\$ 400k). 2018-2023	
	18. UIC Start-up Package (US\$ 365k). 2015-2023	
	17. UIC Visitor's fund award (To host 7 visitors), (US\$10k). 2018-2020	
	16. NSF DMS 1929915 (PI, L. Anderson Co-PI) (US\$ 9k). 2019	
	15. Simons Center for Geometry and Physics (~US\$ 300k), 2019	
	14. SCGP , Conference Grants (PI w/ L. Anderson, US\$ 35k x2). 2019	
	13. Oberwolfach Conference grant (PI, w/ Anderon, Hausel and Mazzeo) 2019	
	12. Alexander von Humboldt Fellowship (US\$ 40k) 2017-2019	
	11. NSF Research grant DMS 1509693 and DMS 1611835 (PI) (US\$ 144k) 2015-2019	
	10. UIC Research Award , through UFRP program (US\$ 30k). 2015-2018	
	9. Conference grant via NSF RTG grant DMS-1246844 (PI: L. Ein). (US\$ 45k) 2016-2018	
	8. UIUC Math Department Conference grant (US\$ 5k). 2017	
	7. NSF Conference grants through GEAR Network (PI), (US\$ 90k). 2015-2017	
	6. American Institute of Mathematics (PI), Conference Grant (US\$ 35k x2). 2015-2017	
	5. Long & Short visit grants via GEAR Network (US\$ 30k), 2014-2017	
	4. Simons Center for Geometry and Physics (PI), Conference Grant (US\$ 30k). 2016	
	3. IHP trimester participant support (x2), Institut Henri Poincaré (US\$ 4k) 2012-2016	
	2. AMS Simons Travel Grant (US\$ 4k) 2014-2015	
	1. Public Engagement Grant , UIUC w./ <i>Delcourt (PI) & Kedem</i> . 2014-2015	

SELECTED
UNDERGRADUATE
& GRADUATE
PRIZES, AWARDS,
AND GRANTS
2006-2013

5. *European Science Foundation short visit Grant* via “ITGP”. 2012-2013
4. *QGM 6 months research grant*, QGM, Aarhus and Oxford. 2012
3. *Clarendon Award* and *New College Scholarship*. 2008-2011
2. *National Government* and *Santander Bank* and *Joaquín V González Prize*. 2009
1. *Argentinian Mathematical Olympiads*, 3rd place, w/ R. Lafuente ($\times 2$) 2007-08

INTERNATIONAL
MEETINGS
ORGANIZED

39. **Co-Organizer**, with Mulase, Dumitrescu, Cruz Morales & Garcia Failde Fall 2023
BANFF: “[Complex Lagrangians, Mirror Symmetry, and Quantization](#)” BANFF, Canada.
38. **Co-Organizer**, with Oscar García-Prada and Steven Bradlow Spring 2023
ICMAT: “[Workshop on Hitchin systems and Langlands duality](#)”, ICMAT, Spain.
37. **Co-Organizer**, with Anderson, Rayan and Schafer-Nameki Spring 2023
BIRS: “[The Geometry, Algebra, and Physics of Higgs Bundles](#)” BIRS-Okanagan, Canada.
36. **Co-Organizer**, with Fredrickson, Mazzeo, Mrowka and Walposki Fall 2022
MSRI: “[Analytic and geometric aspects of gauge theory](#)”, 1-semester program. MSRI, USA.
35. **Co-Organizer**, with Lara Anderson. August 2022
MSRI: “[Connections for Women Workshop](#)”, MSRI, USA
34. **Co-Organizer**, with Brian Collier June 2022
UIC: “[Geometric structures \(re\)United](#)”, UIC, USA.
33. **Co-Organizer**, international conference in Sir Michael Atiyah’s memory September 2021
Newton Institute: “[Unity of Mathematics](#)”, Newton Institute, Cambridge, UK
32. **Co-Organizer**, w/ James Unwin. Second in a series of workshops “SIDE Math”. June 2021
UIC: “[Selected Interdisciplinary Directions of Entertaining Mathematics 2021](#)”, UIC, USA.
31. **Co-Organizer**, w/ James Unwin. First in a series of workshops “SIDE Math”. June 2020
UIC: “[Selected Interdisciplinary Directions of Entertaining Mathematics 2020](#)”, UIC, USA.
30. **Co-Organizer**, w/ Athreya, Bradlow, Gukov, Neitzke, Zorich, Weitze-S. November 2019
MSRI: “[Holomorphic Differentials in Mathematics and Physics](#)”, MSRI, USA.
29. **Co-Organizer**, with A. Mandini, M. Verbitsky, and A. Zorich. June 2019
IMPA: “[Teichmüller Theory, Hyperbolicity and Dynamics](#)”, IMPA, Brazil.
28. **Co-Organizer (chair)**, with L. Anderson, T. Hausel, and R. Mazzeo. May 2019
Oberwolfach: “[Geometry and Physics of Higgs bundles](#)”, Oberwolfach (MFO), Germany.
27. **Co-Organizer** with L. Anderson, 1-semester program. Spring 2019
SCGP: “[Geometry and Physics of Hitchin Systems](#)”, SCGP, USA.
26. **Co-Organizer (chair)** with L. Anderson. Fifth in a series of workshops. May 2019
SCGP: “[Current trends in spectral data for Higgs bundle V](#)”, SCGP, USA.
25. **Co-Organizer (chair)** with L. Anderson, R. Mazzeo, and T. Pantev. March 2019
SCGP: “[Challenges at the Interface of Hitchin Systems and String Theory](#)”, SCGP, USA.
24. **Co-Organizer (chair)**, with R. Arroyo, B. Davison, M. Logares, M. Mereb. December 2018
UBA: “[Current Trends on Hitchin Systems](#)”, UBA, Argentina.
23. **Organizer**, Fourth of a series of Two-day workshops. November 2018
Oxford: “[Current trends in spectral data for Higgs bundle IV](#)”, Oxford, UK.
22. **Organizer**, Third of a series of Two-day workshops. November 2017
UIC: “[Current trends in spectral data for Higgs bundle III](#)”, UIC, USA.
21. **Co-Organizer (chair)**, with L.B. Anderson, J.M. Esole and L. Fredrickson October 2017
AIM: “[Singular Geometry and Higgs Bundles in String Theory](#)”, AIM Workshop.
20. **Co-Organizer** with Florent Schaffhauser and Richard Wentworth July 2017
MCA: “[Geometry and Physics of Higgs bundles](#)”. Special Session, MCA2017, Canada.
19. **Co-Organizer (chair)**, with B. Collier and G. Daskalopoulos May 2017
Allerton: “[Geometry and Physics of Augmented Bundles](#)”. Allerton, Illinois, USA.
18. **Co-Organizer**, with D. Dumas, A. Furman, D. Groves, and K. Whyte February 2017
UIC: “[Chicago Action Now II](#)”, UIC, USA.

MEETINGS
ORGANIZED
FOR GRADUATE
STUDENTS
AND POST-DOCS

17. **Co-Organizer** with Bernardo Uribe et. al. July 2016
CLAM: “[Fifth Latin American Congress of Mathematics](#)”, Barranquilla, Colombia.
16. **Co-Organizer** with Florent Schaffhauser and Richard Wentworth. July 2016
CLAM: “[Higgs bundles and real character varieties](#)”, Special Session, CLAM V, Colombia.
15. **Co-Organizer (chair)**, with L. B. Anderson, D. Baraglia and V. Shende June 2016
SCGP: “[New perspectives on Higgs bundles, branes and quantization](#)”, SCGP, USA.
14. **Co-Organizer (chair)**, with Lara B. Anderson June 2016
SCGP: “[Current trends on spectral data for Higgs bundle II](#)”, SCGP, USA.
13. **Co-Organizer (chair)**, with J. Andersen, D. Baraglia, P. Boalch September 2015
AIM: “[Spectral data for Higgs bundles](#)”, AIM Workshop.
12. **Organizer**, Weekend workshop. October 2015
AIM: “[Current trends on spectral data for Higgs bundles I](#)”, AIM, USA.

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11. **Co-Organizer**. UIC, USA. with Ross, Sinapova, Perkins, et. al. October 2021
UIC: “[GROW 2021: Graduate Research Opportunities for Women](#)”.
 10. **Co-Organizer**. UChicago, USA. with Corlette, Masur, May, Calegari, et. al. October 2020
UChicago: “[GROW 2020: Graduate Research Opportunities for Women](#)”.
 9. **Co-Organizer (chair)** with L. Anderson, S. Katz and J. Teschner. May 2019
SCGP: “[Graduate Summer School on Hitchin systems](#)”, SCGP, USA.
 8. **Co-Organizer (chair)** with L. Anderson; Series of Two-day workshops. March 2019
SCGP: “[Workshop on the geometry and physics of Higgs bundles IV](#)”. SCGP, USA.
 7. **Co-Organizer**, with Steve Rayan. Prince Albert National Park, Canada. August 2018
PANP: “[Geometry and Physics of Gauge Theories](#)”.
 6. **Organizer**, Graduate students’ workshop. UIC, USA. June 2018
UIC: “[RTG Workshop on the geometry and physics of Higgs bundles III](#)”.
 5. **Organizer**, Graduate students’ workshop. UIC, USA. Nov. 2017
UIC: “[RTG Workshop on the geometry and physics of Higgs bundles II](#)”.
 4. **Organizer**, One day graduate workshop for students of UIC, USA. May 2017
UIC: “[Graduate day on Geometry and Topology II](#)”.
 3. **Organizer**, One day graduate workshop for students of UIC, USA. November 2016
UIC: “[Graduate day on Geometry and Topology I](#)”.
 2. **Organizer**, Graduate students’ workshop. UIC, USA. October 2016
UIC: “[RTG Workshop on the geometry and physics of Higgs bundles I](#)”
 1. **Co-Organizer** (with Andy Sanders, Michelle Lee and Sara Maloni), May 2014
GEAR: [GEAR Junior Retreat](#) (10 days - 150 participants, US\$ 300 k budget).

MINI-COURSES

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9. *Undergraduate geometry & topology workshop*, Notre Dame. Summer 2022
3 Hrs - Lectures on knot theory.
 8. *IAS/Park City Mathematics Institute (PCMI) 2019 Program*, Park City, USA. August 2019
4 Hrs - Lectures on Gauge theories intended for ~ 150 participants.
 7. *Junior GEAR Retreat 2017*, Stanford University, USA. August 2017
3 Hrs - Lectures on Higgs bundles intended for ~ 100 participants.
 6. *Summer program for undergraduate women*, UBC, Vancouver, Canada. August 2016
16 Hrs - Lectures on Knot theory intended for undergraduate students.
 5. *School on Higgs bundles*, ICTS, Bangalore, India. March 2016
4 Hrs - Lectures on Higgs bundles intended for graduate students and faculty.
 4. *Pohang Mathematics Institute*, Pohang, Korea. November 2014
3 Hrs - Lectures on Higgs bundles intended for graduate students and faculty.
 3. *Summer School on the moduli space of Higgs bundles*, NUS, Singapore. July 2014
2 Hrs - Lectures on Higgs bundles.
 2. *University of California at Davis*, California, USA. January 2014
3 Hrs - Lectures on Higgs bundles intended for graduate students and faculty.

1. *Faculté des Sciences d'Orsay*, Université Paris-Sud, France April 2013
- 2 Hrs - Lectures on Higgs bundles intended for undergraduate and graduate students.

COLLOQUIA AND
PLENARY TALKS (*)

27. *Heilbronn Annual Meeting* *, Bristol, UK. September 2022
26. *YSP at UIC* *, Chicago, USA. June 2021
25. *Real Sociedad Matemática Española* *, Spain (Online). May 2021
24. *Cibercoloquio Latinoamericano de Matemáticas*, Brazil (Online). April 2021
23. *Unión Matemática Argentina* *, Annual meeting, Argentina (online). September 2020
22. *University of Illinois at Chicago*, USA. March 2020
21. *Rutgers University - Newark Campus*, USA. April 2019
20. *Stony Brook University*, Stony Brook, USA. March 2019
19. *Simons Center for Geometry and Physics*, Stony Brook, USA. February 2019
18. *Iberoamerican Congress on Geometry* *, Valladolid, Spain. January 2018
17. *Northeastern University*, Boston, USA. January 2018
16. *University of Utah*, Salt Lake City, USA. January 2018
15. *University of Washington*, Seattle, USA. January 2018
14. *University of Notre Dame*, South Bend, USA. January 2018
13. *Center for Mathematical Physics*, Hamburg, Germany. June 2017
12. *Universidad Nacional de La Plata*, Argentina. May 2017
11. *Indiana University-Purdue University Indianapolis*, USA. November 2016
10. *String-Maths 2016* *, Collège de France, Paris, France. July 2016
9. *University of Illinois at Chicago*, Chicago, USA. March 2016
8. [†] *Colorado State niversity*, Denver, USA. February 2015
7. *University of North Carolina at Chapel Hill*, USA. January 2015
6. *University of Boston*, Massachusetts, USA. January 2015
5. *University of Minnesota*, Minneapolis, USA. January 2015
4. *Purdue University*, West Lafayette, USA. December 2014
3. *University of Illinois at Chicago*, Chicago, USA. December 2014
2. *Boston College*, Boston, USA. November 2014
1. *Pohang Mathematics Institute*, Pohang, Korea. November 2014

CONFERENCE
AND WORKSHOP
TALKS:
LIST SINCE 2012
(5 BEFORE THAT)

52. *Analytic and Geometric Aspects of Gauge Theory*, MSRI, USA. August 2022
51. *Geometric Analysis Conference*, Rutgers, USA. May 16-23 2022
50. *Mirror symmetry in Latin America*, (Online). July 2021
49. *OLGA 2021 – Oxford-London Gauge Assembly*, (Online) Oxford, UK. June 2021
48. *Women at the intersection of math and theoretical physics*, (Online) Canada. Feb. 2021
47. *XII Festival de Matemática*, (online) Argentina. September 2020
46. *Qolloquium: Quivers, Representations, Resolutions*, (online) Canada. June 2020
45. *Higgs bundles & related topics*, (online) Toronto, Canada. May 2020
44. *Connections for Women: Holomorphic Differentials*, MSRI, USA. August 2019
43. *2019 Workshop by Moira Chas*, Stony Brook, USA. June 2019

42.	Holomorphic Differentials in Mathematics and Physics , SCGP, USA.	February 2019
41.	RTG Workshop on the Geometry and Physics of Higgs bundles III , UIC, USA.	June 2018
40.	Southeastern regional mathematical string theory meeting , Duke University, USA.	April 2018
39.	The Analysis of Gauge-Theoretic Moduli Spaces , Banff, Canada.	August 2017
38.	Harmonic Maps, Higgs Bundles and Integrable Systems , Hannover, Germany.	August 2017
37.	GEOQUANT Conference , Jutland, Denmark.	August 2017
36.	Topological and Algebraic Advances in QFT , Varese, Italy.	August 2017
35.	Gauge theory and special geometry (Special Session, MCA 2017), Canada.	July 2017
34.	Workshop on Moduli theory and Derived category , Seoul, South Korea.	June 2017
33.	Higgs bundles and related topics , Nice, France.	May 2017
32.	Mirror Symmetry Conference for Young Mathematicians , Ann Arbor, USA.	May 2017
31.	British Isles Graduate Workshop Higgs bundles , Isle of Wight, UK.	April 2017
30.	BUNDLES , TIFR, Mumbai, India.	March 2017
29.	School on Geometry and Physics , Bangalore, India.	March 2017
28.	Fifth Annual Midwest Women in Math. Symp. (WIMS), Indianapolis, USA.	February 2017
27.	Encuentro Rioplatense de Álgebra y Geometría , La Plata, Argentina.	December 2016
26.	Workshop on the Geometry and Physics of Higgs bundles I , Chicago, USA.	October 2016
25.	Hitchin 70's birthday conference , Madrid, Spain.	September 2016
24.	New Perspectives on Moduli Spaces in Gauge Theory , NUS, Singapore.	August 2016
23.	Rep. Theory, Integrable Systems and QFT , Northwestern University, USA.	April 2016
22.	Higgs Bundles in Geometry and Physics , University of Heidelberg, Germany.	February 2016
21.	Higgs bundles and Hitchin system , Centre Bernoulli, Switzerland.	January 2016
20.	Workshop on Holomorphic differentials , Cape Town, South Africa.	January 2016
19.	50 years of the Narasimhan–Seshadri Theorem , Chennai, India.	October 2015
18.	Spectral data for Higgs bundles , AIM, San Jose, USA.	August 2015
17.	String Mathematics workshop , Harvard University, USA.	August 2015
16.	Differentialgeometrie im Großen , Oberwolfach, Germany.	July 2015
15.	2015 Joint International Meeting with the AMS , Porto, Portugal.	June 2015
14.	Langlands workshop , UIUC, USA.	November 2014
13.	Geometric structures and representation varieties , SNU Seoul, Korea.	November 2014
12.	Modern trends in Gromov-Witten theory , Hannover, Germany.	September 2014
11.	Workshop on the moduli space of Higgs bundles , NUS, Singapore.	July 2014
10.	Workshop on the Geometry and Physics of Moduli Spaces , Miraflores, Spain.	June 2014
9.	Character Varieties & Geometric Structures , Howard University, USA.	December 2013
8.	9th International ISAAC Congress , Krakow, Poland.	August 2013
7.	Topology of moduli spaces of representations , Miraflores, Spain.	March 2013
6.	Workshop on Geometry of Surface Group Representations , CRM, Spain.	May 2012
59.	De La Plata por el Mundo , (Online) La Plata, Argentina	March 2022
58.	ZAG seminar , (Online).	December 2021
57.	Geometric analysis seminar , (Online) Rutgers, USA.	October 2021
56.	Mathematical Physics seminar , (Online) Perimeter Institute, Canada.	October 2021
55.	Geometry Seminar , (Online) Lisbon, Portugal.	April 2021
54.	LAGOON: Leicester Algebra and Geometry Open ONline Seminar , (Online) UK.	July 2020
53.	Algebraic geometry seminar , Stony Brook University, USA.	May 2019

SEMINARS
LIST SINCE 2015
(22 BEFORE THEN)

52. <i>Geometry and Physics</i> , Rutgers New Brunswick, USA.	April 2019
51. <i>Algebraic geometry seminar</i> , Imperial College, UK.	November 2018
50. <i>Algebraic geometry seminar</i> , University of Oxford, UK.	November 2018
49. <i>String Theory Seminar</i> , University of Oxford, UK.	October 2018
48. <i>Mathematical seminar/interview</i> , University of Oxford, UK.	May 2018
47. <i>Séminaire de Géométrie et Quantification</i> , Institut Henri Poincaré, France.	May 2018
46. <i>Geometry seminar</i> , University College London/King's College London, UK.	April 2018
45. <i>DAMPT & DPMMS seminar/interview</i> , University of Cambridge, UK	March 2018
44. <i>Max Dehn Seminar</i> , University of Utah, USA	January 2018
43. <i>GEAR seminar</i> , University of Illinois at Urbana Champaign, USA.	November 2017
42. <i>Felix Klein seminar</i> , University of Notre Dame, USA.	November 2017
41. ($\times 2$) <i>Geometry Seminar</i> , ITS, Vienna, Austria.	October 2017
40. <i>Mathematical Physics Seminar</i> , University of Heidelberg, Germany.	October 2017
39. <i>Higher Differential Geometry seminar</i> , MPI, Bonn, Germany.	Oct. 2017
38. <i>Algebraic Geometry Seminar</i> , FU Berlin, Germany.	July 2017
37. <i>Mathematical Physics Seminar</i> , IPMU, Japan.	June 2017
36. <i>Topology Seminar</i> , Northwestern University, USA.	May 2017
35. <i>Mathematical Physics Seminar</i> , IMPA, Rio de Janeiro, Brazil.	February 2017
34. <i>Geometric Analysis Seminar</i> , University of Chicago, USA.	January 2017
33. <i>Mathematical Physics Seminar</i> , Perdue University, West Lafayette, USA.	January 2017
32. <i>Algebraic Geometry Seminar</i> , University of Chicago, USA.	January 2017
31. <i>Geometry and Physics Seminar</i> ($\times 2$), Northwestern University,	Spring 2017
30. <i>Algebraic Geometry Seminar</i> , U. of Buenos Aires, Argentina.	June 2012, May 2016
29. <i>Geometry Seminar</i> , University of Texas at Austin, USA.	April 2016
28. <i>Geometry and Analysis Seminar</i> , University of Oxford, UK.	January 2016
27. ($\times 2$) <i>Geometry seminar</i> , EPFL, Lausanne, Switzerland.	June 2015
26. <i>Geometry, Topology and Analysis seminar</i> , University of Sydney, Australia.	May 2015
25. <i>Differential Geometry Seminar</i> , Harvard University, USA.	March 2015
24. <i>Geometry Seminar</i> , UNC at Chapel Hill, USA.	January 2015
23. <i>Geometry Seminar</i> , University of Minnesota, Minneapolis, USA.	January 2015

SELECTED RESEARCH VISITS

7. Mathematical Institute, University of Oxford, UK. (3 +6 months)	2018, 2023
6. Mathematical Sciences Research Institute (MSRI), Berkeley, USA (6+6 months)	2019, 2022
5. IHP, Paris, France (1+1+1 (<i>Research in pairs</i>) months)	2012, 2016, 2022
4. Freie Universität Berlin, Germany. (2 +5 months)	2017, 2019
3. Simons Center for Geometry and Physics, Stony Brook, USA. (5 months)	2019
2. IMPA, Rio de Janeiro, Brazil. (4.5 months)	2006, 2008, 2017
1. National University of Singapore, Singapore. (2.5 months)	2013, 2014, 2016

EDITORIAL BOARDS

- **Editorial Board Member**, *Geometriae Dedicata*. since 2019
- **Guest Editor**. SIGMA special issue "*Geometry and Physics of Hitchin systems*". 2017-2019
- **Editorial Board**. New Collection, University of Oxford, ISSN : 1757-2541. 2010-2011

UNIVERSITY AND DEPARTMENT SERVICE AT UIC	• Senator of the <i>UIC Senate</i> and Fellow of the <i>Honors college</i> . since 2020
	• <i>Co-Organiser, Geometry, Topology and Dynamics seminar</i> . since 2016
	• Research Assistant Professor Search Committee ($\times 5$). 2015-2020
	• Admissions, Fellowships, Assistantships committee ($\times 5$) 2015-2019, 2021
	• Salary ($\times 1$); Visitor ($\times 2$); Faculty Search ($\times 1$); Mathematics Club ($\times 1$) . 2017-2018
OTHER PROFESSIONAL SERVICE ACTIVITIES	• Alexander von Humboldt Foundation , external reviewer. since 2020
	• National Science Centre, Poland , proposal reviewer. 2020
	• Behavioural Science Referee : J. of Med.Int.Res.; Open Psy.J.; since 2020
	• NSF Reviewer ($\times 4$). 2016, 2017, 2019, 2021
	• WMC SheSource Expert , for Women's Media Center (WMC) . since 2017
	• Co-Organizer of Research seminars , University of Heidelberg, Germany. 2012-2013
	• MathSciNet Reviewer (accept duties ~ 2 times per year). since 2014
	• Admissions Interviewer . Magdalen and St Peter's Colleges, Oxford. 2009-2011
	• Mathematics Journal Referee (accept duties ~ 5 times per year). since 2012
	Duke; & Israel J. Math; Adv. Geo.; & J. Top.; Diff. Geom. and its App.; Commun. Math. Phys.; Pac. J. Math. & Geo. Ded.; SIGMA & Q. J. Math; Int. J. Math. & PRE; Revista Mat. Comp.; Annals of he ENS; PRIMS & Int. Math. R. Not.; J. Pure Appl. Algebra; J. LMS and J. Geom. Phys.
UNIVERSITY LARGE CLASS TEACHING	University Instructor , University of Illinois at Chicago, USA
	• Math 300: Writing for Mathematics . ($\times 12$) Spring 2020 & Fall 2020, 2021
	• Math 215: Introduction to advanced mathematics . ($\times 4$) Fall 2015, 2016 & Spring 2018
	• Math 596: Independent study . ($\times 6$) (<i>graduate course</i>) Fall 2015, 2016, 2017 & Spring 2017
	• Math 547: Algebraic Topology I . ($\times 1$) (<i>graduate course</i>) Fall 2016
	• Math 549: Differentiable Manifolds I . ($\times 2$) (<i>graduate course</i>) Fall 2015 & Spring 2017
UNIVERSITY 2 TO 1 TEACHING	University Instructor , University of Illinois at Urbana-Champaign, USA
	• Fundamental Mathematics . Math 348 ($\times 4$) and Math 347 ($\times 2$) 2013-2015
	College tutorials , University of Oxford, UK. 2010-2012
	As a <i>Stipendiary Lecturer in Mathematics</i> for Trinity College and Magdalen College
	As a <i>Retained Lecturer</i> for Hertford College
TEACHING ASSISTANTSHIPS	As a <i>College Tutor</i> for New College, St. Peter's College, Lincoln College and Hertford College.
	• <i>3D Calculus; Calculus of Variations; Linear Algebra I,II; Groups, Rings and Fields</i> .
	Class Tutor , Mathematical Institute, Oxford, UK. 2010
	• <i>B9. Algebraic Number Theory</i> (& Revision Classes).
	Teaching Assistant , Mathematical Institute, University of Oxford. 2009-2010
INTERNATIONAL PROGRAMS & HIGH SCHOOL TEACHING	• <i>B9. Algebraic Number Theory; B3. Geometry of Surfaces; C9.1 Elliptic Curves</i> .
	Teaching Assistant , National University of La Plata, Argentina. 2006-2008
	• <i>Analysis</i> (Mathematics dept.); <i>Probabilities and Statistics</i> (Engineering dept.).
	• OPUS Tutor & WISC Tutor , University of Oxford Programs . 2010-2012
	• CIE Tutor & Summer Lecturer , Center for International Education , Oxford. 2009-2011
	• Junior Lecturer , Colegio Nacional Rafael Hernandez (High School) Argentina. 2007
	• Tutor and Mentor online , Tutor.com , New York City, US. (through Latinhire). 2005-2008

OUTREACH ACTIVITIES

- **Speaker:** *Harvard-MIT Math Tournament*, (career talk) HMMT, USA. November 2021
- **Reader:** *Guidepost Montessori*, Nido & Toddler room Book reading. July & June 2021
- **Speaker:** *UIC AWM Chapter, Stanford Math Organization, New College Oxford* 2021
- **Speaker:** *Stanford Women in Math Mentoring, UChicago Women in STEM club* 2021
- **Co-Organizer** (w. [James Unwin](#)): [SIDE MATH 2020](#) 2020
- **Co-Organizer** (w. [James Unwin](#)): [1st](#), [2nd](#), [3rd](#), [4th](#), [5th](#) Sonia day at UIC, 2015-2019
- **Connections for Women Panelist**, MSRI, Berkeley, USA. 2019
- **Volunteer:** Sonia Maths day for Girls and *UIUC GEMS program* 2013-2015
- **Co-Organizer** (with Jayadev Athreya et al.) [MoSAIC Festival](#), UIUC. 2014
- **Panel speaker:** *Graduate College Career Development*, UIUC, USA 2014
- **Teacher:** *Urbana High School & Garden Hills Elementary School*. 2013

IN THE MEDIA

- (×3) *About Children Books* [Illinois Conn.](#); [Block Club Chicago](#) ; [UIC Today](#). 2021
- (× 5) *About math life / women in math / activities* 2019-2021
[UIC Today](#); [Wiaarkhu Magazine](#); [Interview for “2020 Lathisms”](#);
[Interview about organizing workshops at MFO](#).
- (× 5) *About Gossip spread* – A trust model for spreading of gossip, with Bhansali. 2019
[ZAP.aeiou](#); [UIC News](#); [Phys.org](#); [Tech Explorist](#); [NewsWise](#).
- (×14) *About Phone-Walkers* – behavioural study done with [James Unwin](#). 2018
[The Atlantic](#); [The Chicago Tribune](#); [The Süddeutsche Zeitung](#); [The Times of India](#);
[MIT Tech. Rev.](#); [Cronica Global](#) ; [The Week](#); [Co-Design](#); [UIC LAS](#); [Workplace Insight](#);
[Nextbigwhat](#); [Xuehua](#); [Marketingoops - Thailand](#); [Cromo - Uruguay](#).
- (×2) *About projects I mentored*. [Business Wire](#), [Kusi News](#). 2017
- (× 3) *Sonia Kovalevsky Days* – with [J. Unwin](#). 2016-2019
[AWM Newsletter](#), [49 \(5\)](#); [UIC News](#); [AWM Newsletter](#), [46 \(6\)](#).
- (× 1) *About Humboldt Fellowship* – awards to [J. Unwin](#) and myself. [UIC Today](#). 2017
- (× 2) *About workshops co-organized*. [SCGP News](#); [AIMatters 2016](#). 2016
- (× 3) *About being top undergraduate student*. [La Nación](#), [Clarín](#), [El Día](#),. 2009

ADDITIONAL EXPERIENCE

- **Spanish:** *Native*; **English and French:** *Fluent*; **German:** *A2*
- **Choir Singer**, [Oratorio Society](#), UIUC, USA. 2013-2015
- **Treasurer**, [Middle Common Room](#), [New College](#), University of Oxford. 2010-2011
- **Conference Assistant**, and **IT Assistant**, [New College](#), University of Oxford. 2010-2011

REFERENCES

- [Prof. Steven Bradlow](#) (UIUC).
- [Prof. David Dumas](#) (UIC, Teaching).
- [Prof. Victor Flynn](#) (Oxford, Teaching).
- [Prof. Sergei Gukov](#) (Caltech).
- [Prof. Nigel Hitchin](#) (Oxford).
- [Prof. Anna Wienhard](#) (Heidelberg).
- [Prof. Rafe Mazzeo](#) (Stanford).
- [Prof. Motohico Mulase](#) (UC Davis).
- [Prof. Bill Goldman](#) (Maryland).
- [Prof. Richard Wentworth](#) (Maryland).

WORK
IN PROGRESS
(* = STUDENT)

53. *Minimal surfaces and orthogonal Higgs bundles*, with Ian McIntosh.
52. *Generalized B-operators on real surfaces*, with Biswas and Heller.
51. *Desynchrony and the dispersal of groups*, with Robin Dunbar, Sheryl Hsu*.
50. *Sonia Kovalevsky, the potential to inspire: A journey to become a scientist*.
49. *Generalized Hyperpolygons and applications*, ZAG's Handbook of MAG, CRC press.

VOLUMES
& BOOKS

48. [Writing for Mathematics](#), ISBN 979-8-7814575-9-5. 2021
47. [Ene and the Magic Tree: a mathematical adventure](#), 2021
with Cecilia La Rosa (Illustrator). ISBN: 978-1737058410.
46. [Ene and the Magic Boxes: an odyssey through the world of artisans](#), 2021
with Cecilia La Rosa (Illustrator). ISBN: 978-1737058458.
45. [Geometry and Physics of Hitchin Systems](#), edited with Lara B. Anderson 2019
[Symmetry, Integrability and Geometry: Methods and Applications \(SIGMA\)](#).
44. [Geometry and Physics of Higgs Bundles](#), edited with Anderson, Hausel, Mazzeo 2019
Oberwolfach Reports, Vol. 16, N. 2, 2019, pp. 1357–1417 DOI: 10.4171/OWR/2019/23

PREPRINTS
under review
(* = STUDENT)
PUBLICATIONS
(* = STUDENT)

43. *The Power of Many: A Physarum Swarm Steiner Tree Algorithm*, 2021
with Sheryl Hsu* and Fidel I. Schaposnik Massolo. [ArXiv.2110.08233](#).
42. *Cell fusion through slime mold network dynamics*, with Sheryl Hsu*. 2022
J. R. Soc. Interface, (To appear)
41. *Triality for homogeneous polynomials*, with Sebastian Schulz*. 2021
SIGMA, 17 (2021), 079, 14 pages.
40. *Branes and moduli spaces of Higgs bundles on smooth projective varieties*. 2021
with Indranil Biswas and Sebastian Heller.
Research in the Mathematical Science, (To appear)
39. *A modified age-structured SIR model for COVID-19 type viruses*, with Vishaal Ram*. 2021
Nature Scientific Reports, 11, 15194 (2021).
38. *On the generalized $SO(2n, \mathbb{C})$ -opers*, with Indranil Biswas and Mengxue Yang*. 2021
Annals of Global Analysis and Geometry, 60, pages 539 – 557 (2021)
37. *Advanced topics in gauge theory: geometry and physics of Higgs bundles*. 2021
Park City Mathematics Series, Volume 28, pp. 201-252, 2021.
36. *Entendiendo la P y el Intervalo de confianza 95*, w/ Paula Caporal & Daniela Bozzacchi. 2021
Editorial Médica Panamericana, PROTIPED, pp.75-90; ISSN: 2362-3942.
35. *What is... a hyperpolygon*, with Steve Rayan. 2021
Notices of the AMS, Vol. 68, N. 1, January 2021.
34. *Moduli spaces of generalized hyperpolygons*, with Steve Rayan. 2021
The Quarterly Journal of Mathematics, Vol 72 (2021), 1–25;.
33. *Extrapolating continuous color emotions through deep learning*, with Vishaal Ram*, 2020
and Konstantinou, Volkan, Papadatou-Pastou, Manav, Jonauskaite, Mohr.
Physical Review Research, Vol. 2, No. 3, (2020).
32. *Orthogonal Higgs bundles with singular spectral curves*, with Bradlow and Branco*. 2020
Communications in Analysis and Geometry, Vol. 28, N. 8, 1895–1931, 2020.
31. *Generalized B-operators*, with Indranil Biswas and Mengxue Yang*. 2020
SIGMA 16 (2020), 041, 28 pages.
30. *Minimal percolating sets for mutating infectious diseases*, with Yuyuan Luo*. 2020
Physical Review Research, Vol. 2, No. 2 (2020).
29. *Higgs bundles without geometry*, with Steve Rayan. 2020
Snapshots of modern mathematics, DOI 10.14760/SNAP-2020-008-EN.
28. *Higgs bundles – recent applications*, 2020
Notices of the AMS, Vol. 67 No. 5 (May 2020)
27. *A trust model for bootstrap percolation*, with Rinni Bhansali*. 2020
Proc. R. Soc. A 476: 20190826 (2020).

26. *Cayley and Langlands type correspondences for orthogonal Higgs bundles*, with David Baraglia. **Transactions of the AMS**, Vol. 371, Num. 10 (2019) 41 pages. 2019
 25. *A geometric approach to orthogonal Higgs bundles*, **European Journal of Mathematics**, Vol. 4, Num. 4, pp 1390-1411 (2018). 2018
 24. *Singular geometry and Higgs bundles in string theory*, with L. B. Anderson, M. Esole and L. Fredrickson. **SIGMA**, 14 (2018), 037, 27 pages 2018
 23. *Branes through finite group actions*, with Sebastian Heller. **Journal of Geometry and Physics**, Vol. 129 (2018) 279-293. 2018
 22. *Brauer group of Moduli of Higgs bundles and connections*, with Baraglia and Biswas. **A Festschrift in Honour of Nigel Hitchin**, Vol. 2, Oxford University Press. 2018
 21. *Modeling epidemics on d-cliqued graphs*, with Anlin Zhang*. **Letters in Biomathematics**, Volume 5, Number 1 (2018), p. 49-69. 2018
 20. *The phone walkers: A study of human dependance on inactive mobile devices*, with James Unwin. **Behaviour**, (2018) Volume 155, Issue 5, p. 389 - 414. 2018
 19. *On the geometry of regular icosahedral capsids containing disymmetrons*, with K-S. Ang*. **Journal of Structural Biology**, Volume 197, Issue 3 (2017), p. 340-349. 2017
 18. *T-Branes at Limits of Geometry*, with L.B. Anderson, J.J. Heckman, and S. Katz. **J. High Energ. Phys.** (2017) 2017: 58. 2017
 17. *An introduction to spectral data for Higgs bundles* **Lecture Note Series**, IMS LNS Vol 65 (2017), 38 pages. 2017
 16. *Monodromy of rank 2 twisted Hitchin systems and real character varieties*, with David Baraglia. **Transactions of the AMS**, Vol. 370, Num. 8, (2018). 2017
 15. *Automorphisms of \mathbb{C}^* moduli spaces associated to a Riemann surface*, with David Baraglia and Indranil Biswas. **SIGMA** 12 (2016), 007, 14 pages. 2016
 14. *Higgs bundles and exceptional isogenies*, with Steve Bradlow. **Res. Math. Sci.** (2016) 3:14 DOI 10.1186/s40687-016-0062-0. 2016
 13. *Interface control and snow crystal growth*, with Jessica Li*. **Phys. Rev. E**, 93, 023302, 2016. 2016
 12. *Real structures on moduli spaces of Higgs bundles*, with David Baraglia. **Adv. Theor. Math. Phys.**, Vol. 20, N. 3 (2016), 525-551. 2016
 11. *Higgs bundles and applications*. **Oberwolfach Reports**, Report No. 31 (2015), 31-33. 2015
 10. *Spectral data for $U(m, m)$ -Higgs bundles*. **Int. Math. Res. Notices**, Vol. 2015 no. 11. 2015
 9. *Nonabelianization of Higgs bundles*, with Nigel Hitchin. **J. Differential Geom.** Volume 97, Number 1 (2014), 79-89. 2014
 8. *Higgs bundles and (A, B, A) -branes*, with David Baraglia. **Communications in Mathematical Physics**, Vol. 331 No. 3. 2014
 7. *Spectral data for G -Higgs bundles*. **DPhil Thesis**, University of Oxford, 170 p. 2013
 6. *Monodromy of the SL_2 Hitchin fibration*. **Int. J. Math.** Vol. 24, 1350013 (2013) 2013
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5. *Working from Home. 4 Months and Still Counting*, with A. Frabetti, V. Salnikov **EMS Newsletter**, 9 (117), 38-41, September 2020. 2020
 4. *Mathematics in the sea*, with James Unwin. **AWM Newsletter**, Vol.49, No.6. 2019
 3. *Sonia Kovalevsky Days, the potential to inspire*, with James Unwin. **AWM Newsletter**. Vol.49, No.5. 2019
 2. *Bridges between worlds, from past to present*. **AIMatters 2016**, Newsletter of the American Institute of Mathematics. 2016
 1. *Sonia Kovalevsky Days in Chicago*, with J. Unwin. **AWM Newsletter**, Vol. 46, No.6. 2016
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