

# Antun Milas

*Curriculum Vitæ (2025)*

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## APPOINTMENTS

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<b>Professor of Mathematics</b> <i>University at Albany, SUNY</i>	2018-
<b>Associate Professor of Mathematics</b> <i>University at Albany, SUNY</i>	2010-2018
<b>Assistant Professor of Mathematics</b> <i>University at Albany, SUNY</i>	2004-2010
<b>Postdoctoral Fellow</b> <i>Rensselaer Polytechnic Institute</i>	2003-2004
<b>R.S. Pierce Visiting Assistant Professor</b> <i>University of Arizona</i>	2001-2003

## EDUCATION

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<b>PhD Mathematics</b> <i>Rutgers University, New Brunswick</i> Correlation functions, vertex operator algebras and zeta-functions. Thesis advisor: J. Lepowsky (Rutgers)	1996-2001
<b>BSc Mathematics</b> <i>University of Zagreb, Croatia</i> Thesis title: Wiener's theorems on locally compact commutative groups	1991-1994

## TEACHING

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- At UAlbany: Calculus and Precalculus, Linear Algebra, Elementary Abstract Algebra, Graduate Abstract Algebra I and II, Advanced Linear Algebra for Graduate Students, Introduction

to Representation Theory, Topics in Algebra, Honors Calculus II, Introduction to Differential Equations, Introduction to Proofs, Classical Algebra, Topics in Algebra (Hopf Algebras), Homological Algebra, Multivariable Calculus, Advanced Linear Algebra for Undergraduates, Topics in Algebra (Quantum Groups), Topics in Algebra (Vertex Algebras), Topics in Algebra (Tensor Categories), Number Theory, Number Theory - Introduction to Cryptography, Topics in Algebra (Quantum Groups and Tensor Categories)

- At RPI: Calculus II, Abstract Algebra
- At UArizona: Calculus I, Advanced Linear Algebra, Calculus II, Complex Analysis
- At Rutgers: Calculus I (Summer instructor)

## SUBMITTED

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89. A. Milas, Generalized multiple q-zeta series and vertex algebras, submitted.
88. D. Adamović and A. Milas, On vertex algebras related to regular representations of  $SL(2)$ , submitted.

## PEER-REVIEWED JOURNAL PAPERS/PREPRINTS

[\[statistics\]](#)[\[arXiv\]](#)

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87. A. Milas and M. Penn, Free Fermions Revisited, Journal of Algebra and Its Applications (2025): 2650269.
86. D. Adamović and A. Milas, Logarithmic vertex algebras related to  $sp(4)$ , Rad HAZU, 558=28 (2024): 259-281.
85. A. Milas, Quantum modular forms and plumbing graphs of 3-manifolds, ICBS 2024 Proceedings, International Press (2025), 10pp.
84. A. Milas and Penn, M., 2-Permutation orbifolds of W-algebras, New York J. Math 31 (2025): 589-618. New York Journal of Mathematics (2025).
83. A. Milas, and L. Wang, Modularity of Nahm Sums for the Tadpole Diagram. (2024) 73-101. International Journal of Number Theory/World Scientific. 20/01.
82. A. Milas, Penn, M., Sadowski, C. S3-permutation orbifolds of Virasoro vertex algebras. (2023) Volume 227, pp. 107378. Elsevier: Journal of Pure and Applied Algebra.
81. S. Kanade, A. Milas and M. Russell, "On certain identities involving Nahm-type sums with double poles", Volume 143, (2023), pp. 102452. Advances in Applied Mathematics.
80. K. Bringmann, J. Kaszian, A. Milas and C. Nazaroglu, "Higher depth false modular forms", (2023) Volume 25, Issue 07. Communication in Contemporary Mathematics.
79. H. Li and A. Milas, Jet schemes, Quantum dilogarithm and Feigin-Stoyanovsky's principal subspaces. (2024) 640, pp. 21-58. Elsevier: Journal of Algebra.

78. H. Li, A. Milas, and J. Wauchope, "  $S_2$ -orbifolds of  $N=1$  and  $N=2$  superconformal vertex algebras and  $W$ -algebras", *Communications in Algebra* 49, (2021): 1609-1638.
77. D. Adamovic, A. Milas and M. Penn, "On certain  $W$ -algebras of type  $W_k(sl_4, f)$ ", *Contemporary Mathematics* 768 (2021), p.253.
76. K. Bringmann, C. Jennings-Shaffer, A. Milas, "Graph schemes, graph series, and modularity", *Journal of Combinatorial Theory, Series A*, (2023) Volume 197, pp. 105749. Journal of Combinatorial Theory A.
75. K. Bringmann, J. Kaszian, A. Milas and C. Nazaroglu, "Integral representation of rank two false theta functions and modularity", *Res. Math. Sci.*, (2021).
74. D. Adamovic and A. Milas, "On some vertex algebras related to  $V_{-1}(sl(n))$  and their characters", *Transformation Groups*, 26 (2021), pp.1-30.
73. A. Milas, M. Penn and C. Sadowski, "Permutation orbifolds of the Virasoro vertex algebra and  $W$ -algebras", *Journal of Algebra* 570 (2021): 267-296.
72. C. Jennings-Shaffer and A. Milas, "Further  $q$ -series identities and conjectures relating false theta functions and characters", *Contemporary Mathematics* 768 (2021), p.253.
71. A. Milas and M. Penn, "Permutation orbifolds of  $sl(2)$  vertex operator algebras", *Glasnik Matematički*, 55 (2020): 1-24.
70. D. Adamovic, A. Milas, and Q. Wang, "On parafermion vertex algebras  $sl(2)_{-3/2}$  and  $sl(3)_{-3/2}$ ", *Communications in Contemporary Mathematics*, (2020) p.2050086.
69. C. Jennings-Shaffer and A. Milas, "On  $q$ -series identities for false theta functions", *Advances in Mathematics* 375 (2020): 107411.
68. K. Bringmann, K. Mahlburg and A. Milas, "Higher depth quantum modular forms and plumbed 3-manifolds", *Letters in Mathematical Physics* 110 (2020), 675-2702.
67. K. Bringmann, J. Kaszian, A. Milas and S. Zwegers, "Rank two false theta functions and Jacobi forms of negative definite matrix index", *Advances in Applied Mathematics* 112, (2020), 101946
66. K. Bringmann, K. Mahlburg and A. Milas, "Quantum modular forms and plumbing graphs of 3-manifolds", *Journal of Combinatorial Theory, Series A* 170, 105145, (2020).
65. K. Bringmann, J. Kaszian, and A. Milas, "Some examples of higher depth vector-valued quantum modular forms", *Proceedings of the Ramanujan Mathematical Society*, (2020).
64. A. Milas, M. Penn, J. Wauchope. "Permutation Orbifolds of Rank Three Fermionic Vertex Superalgebras," in 'Affine, Vertex and  $W$ -algebras', Rome 2018, *Proceedings of the IndAM Conference*. (2019), pp. 183-202.
63. A. Milas, M. Penn, H. Shao. "Permutation Orbifolds of the Heisenberg Vertex Algebra  $H(3)$ ," *Journal of Mathematical Physics*, 60, (2019), p. 021703.
62. K. Bringmann, J. Kaszian, and A. Milas, "Higher depth quantum modular forms, multiple Eichler integrals, and  $\mathfrak{sl}_3$  false theta functions, *Research in the Mathematical Sciences* 6 (2019), pp.1-41.

61. K. Bringmann, K. Mahlburg and A. Milas. "On characters of  $L_{sl(n)}(-\Lambda_0)$  -modules," *Communications in Contemporary Mathematics*, (2019), p. 1950030.
60. K. Bringmann, J. Kaszian and A. Milas. "Vector-valued higher depth quantum modular forms and higher Mordell integrals," *Journal of Mathematical Analysis and Applications* 480, no. 2 (2019): 123397.
59. T. Creutzig, A. Milas and M. Rupert, "Logarithmic Link Invariants of  $\overline{U}_q^H(\mathfrak{sl}_2)$  and Asymptotic Dimensions of Singlet Vertex Algebras", *Journal of Pure and Applied Algebra*, 222 2018, 3224-3247
58. T. Creutzig and A. Milas, "Higher rank partial and false theta functions and representation theory", *Advances in Mathematics* **314**, 203-227 (2017).
57. K. Bringmann, A. Folsom, and A. Milas, "Asymptotic behavior of partial and false theta functions arising from Jacobi forms and regularized characters", *Journal of Mathematical Physics* **58.1**, 011702 (2017).
56. K. Bringmann, K. Mahlburg and A. Milas, "The Lusztig-Macdonald-Wall conjectures and  $q$ -difference equations", *Contemporary Mathematics*, (2017).
55. K. Bringmann and A. Milas, "W-algebras, higher rank false theta functions and quantum dimensions", *Selecta Mathematica (NS)* **23.2**, 1249-1278 (2017).
54. D. Adamovic and A. Milas, "Some applications and constructions of intertwining operators in Logarithmic Conformal Field Theory", *Contemporary Mathematics*, (2017).
53. (\*) C. Calinescu, A. Milas and M. Penn, "Vertex algebraic structure of principal subspaces of basic  $A_{2n}^{(2)}$  modules", *Journal of Pure and Applied Algebra* **220**, 1752-1784 (2016).
52. T. Creutzig, A. Milas and S. Wood, "On regularized quantum dimensions of the singlet vertex operator algebra and false theta functions", *International Mathematical Research Notices (I.M.R.N.)* **rnw037**, (2016).
51. D. Adamovic, X. Lin and A. Milas, "Vertex operator algebras and constant term identities", *Symmetry, Integrability and Geometry (SIGMA)* **11**, 16pp (2015).
50. K. Bringmann and A. Milas, "On Fourier expansion of Bloch-Okounkov  $n$ -point function", *Journal of Combinatorial Theory A* **136**, 201-219 (2015).
49. K. Bringmann and A. Milas, "W-algebras, false theta functions and quantum modular forms", *International Mathematical Research Notices (I.M.R.N.)* **21**, 11351-11387 (2015).
48. C. Calinescu, J. Lepowsky and A. Milas, "Vertex algebraic structure of principal subspaces of basic  $A_2^{(2)}$  modules", *International Journal of Mathematics* **25**, 1450063 (2014).
47. T. Creutzig and A. Milas, "False Theta Functions and the Verlinde formula", *Advances in Mathematics* **262**, 520-554 (2014).
46. D. Adamovic, X. Lin and A. Milas, "ADE subalgebras of the triplet vertex algebra; D-series", *International Journal of Mathematics* **25**, 1450001 (2014).

45. A.Milas, "Characters of modules of irrational vertex operator algebras", *Contrib.Math.Comput.Sci. Heidelberg* **8**, 1-29 (2014).
44. D. Adamovic and A.Milas, " $C_2$ -cofinite vertex algebras and their logarithmic modules", *Mathematical Lectures from Beijing University* **2**, 18pp (2014).
43. D. Adamovic and A.Milas, "Logarithmic Conformal Field Theory and Vertex Operator (Super)Algebras", *Journal of Physics A* **46**, 494005 (2013).
42. D. Adamovic and A.Milas, "Representation theory of  $A(p)$  and  $A_{2,p}$  vertex operator (super)algebras", *Contemporary Mathematics AMS* **602**, 23-38 (2013).
41. D. Adamovic, X. Lin and A.Milas, "ADE subalgebras of the triplet vertex algebra  $W(p)$ : A-series", *Communications in Contemporary Mathematics* **15**, 1350028 (2013).
40. A. Feingold and A.Milas, "The 3-state Potts model and Rogers-Ramanujan series", *Central European Journal of Mathematics* **11**, 1-16 (2013).
39. (\*)A.Milas and M. Penn, "Lattice vertex algebras and combinatorial bases: general case and W-algebras", *New York Journal of Mathematics* **18**, 621-650 (2012).
38. D. Adamovic and A.Milas, "An explicit construction of logarithmic modules for the vertex algebra  $W_{p,p'}$ ", *Journal of Mathematical Physics* **53**, 073511 (2012).
37. D. Adamovic and A.Milas, "On W-algebra extensions of  $(2,p)$  minimal models:  $p > 3$ ", *Journal of Algebra* **344**, 313-332 (2011).
36. D. Adamovic and A.Milas, "The structure of Zhu's algebras for certain W-algebras", *Advances in Mathematics* **227**, 2425-2456 (2011).
35. C. Calinescu, J. Lepowsky and A.Milas, "Vertex-algebraic structure of the principal subspaces of level one modules for the untwisted affine Lie algebras of types A,D,E", *Journal of Algebra* **323**, 167-192 (2010).
34. D. Adamovic and A.Milas, "On W-algebras associated to  $(2,p)$  minimal models and their representations", *International Mathematical Research Notices (I.M.R.N.)* **20**, 3896-3934 (2010).
33. A.Milas, "On certain automorphic forms associated to rational vertex operator algebras", *London Mathematical Society Lecture Note Series* **372**, 330-357 (2010).
32. D. Adamovic and A.Milas, "Lattice construction of logarithmic modules for certain vertex algebras", *Selecta Mathematica (NS)* **15**, 535-561 (2009).
31. D. Adamovic and A.Milas, "An analogue of modular BPZ equation in logarithmic (super)conformal field theory", *Contemporary Mathematics AMS* **497**, 1-17 (2009).
30. D. Adamovic and A.Milas, "The  $N = 1$  triplet vertex operator superalgebras: twisted sector", *Symmetry, Integrability and Geometry: Methods and Applications (SIGMA)*, 24pp (2008).
29. A. Milas, E. Mortenson and K. Ono, "Number theoretic properties of Wronskians of Andrews-Gordon series", *International Journal of Number Theory* **4**, 1-15 (2008).

28. D. Adamovic and A.Milas, “The  $N = 1$  triplet vertex operator superalgebras”, *Communications in Mathematical Physics* **288**, 225-270 (2009).
27. D. Adamovic and A.Milas, “On the triplet vertex algebra  $W(p)$ ”, *Advances in Mathematics* **217**, 2664-2699 (2008).
26. C. Calinescu, J. Lepowsky and A.Milas , “Vertex-algebraic structure of the principal subspaces of certain  $A_1^{(1)}$ -modules. II. Higher-level case”, *Journal of Pure and Applied Algebra* **212**, 1928-1950 (2008).
25. C. Calinescu, J. Lepowsky and A.Milas , “Vertex-algebraic structure of the principal subspaces of certain  $A_1^{(1)}$ -modules. I”, *International Journal of Mathematics* **19**, 71-92 (2008).
24. A.Milas, “Logarithmic intertwining operators and vertex operators”, *Communications in Mathematical Physics* **277**, 497-529 (2008).
23. D. Adamovic and A.Milas, “ Logarithmic intertwining operators and  $W(2, 2p - 1)$ -algebras ”, *Journal of Mathematical Physics* **48**, 073503 (2007).
22. A.Milas, “Characters, supercharacters and Weber modular functions”, *Journal für die reine und angewandte Mathematik (Crelle’s Journal)* **608**, 35-64 (2007).
21. A.Milas, “Modular forms and almost linear dependence of graded dimensions”, *Contemporary Mathematics AMS* **442**, 411-424 (2007).
20. A.Milas, “Modular invariance, modular identities and supersingular  $j$ -invariants”, *Mathematical Research Letters* **13**, 729-746 (2006).
19. B. Doyon, J. Lepowsky and A. Milas , “Twisted vertex operators and Bernoulli polynomials”, *Communications in Contemporary Mathematics* **8**, 247-307 (2006).
18. S. Capparelli, J. Lepowsky and A. Milas, “Rogers–Selberg’s recursion, Gordon–Andrews identities and intertwining operators”, *The Ramanujan Journal* **12**, 377-395 (2006).
17. A.Milas, “Virasoro algebra, Dedekind eta-function and Specialized Macdonald’s identities”, *Transformation Groups* **9**, 273-288 (2004).
16. A.Milas, “Ramanujan’s ”Lost Notebook” and the Virasoro Algebra”, *Communications in Mathematical Physics* **251**, 567-588 (2004).
15. B. Doyon, J. Lepowsky and A. Milas , “Twisted modules and generalized Bernoulli polynomial”, *International Mathematical Research Notices (I.M.R.N.)* **44**, 2391-2408 (2003).
14. S. Capparelli, J. Lepowsky and A. Milas, “Rogers Ramanujan recursion and intertwining operators”, *Communications in Contemporary Mathematics* **5**, 1-20 (2003).
13. A.Milas, “Formal differential operators, vertex operator algebras and zeta–values, II”, *Journal of Pure and Applied Algebra* **183**, 191-244 (2003).
12. A.Milas, “Formal differential operators, vertex operator algebras and zeta–values, I”, *Journal of Pure and Applied Algebra* **183**, 129-190 (2003).
11. A.Milas, “Correlation functions, differential operators and zeta–functions”, *The Fields Institute Communications Series* **39**, 139-167 (2003).

10. A.Milas, “Weak modules and logarithmic intertwining operators”, *Contemporary Mathematics AMS* **297**, 201-227 (2002).
9. A.Milas, “Fusion rings for degenerate minimal models”, *Journal of Algebra* **254**, 300–335 (2002).
8. Y.-Z. Huang and A.Milas, “Intertwining operator superalgebras and vertex tensor categories for superconformal algebras, II”, *Transactions of the American Mathematical Society* **354**, 363–385 (2002).
7. Y.-Z. Huang and A.Milas, “Intertwining operator superalgebras and vertex tensor categories for superconformal algebras, II”, *Communications in Contemporary Mathematics* **4**, 327-355 (2002).
6. A.Milas, “Vertex operator algebras associated to modular invariant representations”, *Physical Applications and Mathematical Aspects of Geometry, Groups, and Algebras: Proceedings of the XXIst International Colloquium on group theoretical methods in physics, Goslar, Germany*, (1997).
5. D. Adamovic and A.Milas, “Vertex operator algebras associated to modular invariant representations for  $A_1^{(1)}$ ”, *Mathematical Research Letters* **2**, 563–575 (1995).

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## CONFERENCE PROCEEDINGS, BOOKS

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4. S. Kanade and A. Milas, Special Issue of SIGMA (online), on the occasion of Jim Lepowsky’s 80th birthday, 2025.
3. D. Adamovic, A. Dujella, A.Milas, P. Pandzic, Representation Theory XVI, Proceedings of the Dubrovnik Conference ”Representation Theory XVI”, June 2019. **Vol. 758** *Contemporary Mathematics* (2021)
2. K. Barron, L. Jurisich, A. Milas and K. Misra (editors), “Lie algebras, vertex operator algebras, and related topics, Proceedings of the Conference in honor of J.Lepowsky and R. Wilson, University of Notre Dame, August 14-18, 2015 ”, *Contemporary Mathematics* **Vol. 695**, 248 pp. (2017).
1. D. Bakic and A. Milas, “Solved problems in Linear Algebra”, **2nd edition**, (1997).

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## CITATIONS

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- Google Scholar: 2630, h-index: 31

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## RESEARCH AWARDS

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SUNY-Albany Presidential Excellence Award in Research and Creative Activities , 2022.

Frontiers of Science Award in Mathematics (with Bringmann and Mahlburg), ICBS Beijing, 2024

## GRANTS (FUNDING)

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- **Simons Travel Grant for Mathematicians (Simons Foundation)**  
*Sole PI*

\$42,500  
09/25 – 08/30
- **National Science Foundation (NSF) Standard Conference Grant**  
Women in Algebra and Combinatorics; AWM 50  
*Senior Personnel*

\$43,000  
09/22 – 08/24
- **National Science Foundation (NSF) Standard Grant**  
DMS-2101844  
*Sole PI*

\$358,500  
09/21 – 08/26
- **Simons Collaboration Grant for Mathematicians (Simons Foundation)**  
*Sole PI*  
*\*The grant was effectively terminated on 09/01/22 because at the time the awardee cannot hold the grant concurrently with an NSF grant.\**

\$42,500  
09/20 – 08/25
- **National Science Foundation (NSF) Standard Conference Grant DMS-1708232**  
Representation Theory XV  
*Sole PI*

\$30,000  
05/17 – 05/19
- **National Science Foundation (NSF) Standard Grant DMS-160107**  
Irrational Vertex Algebras, Quantum Modular Forms and Unrolled Quantum Groups  
*Sole PI*  
*Awarded*

\$138,000  
09/16 – 08/20
- **National Science Foundation (NSF) Standard Conference Grant DMS-1507305**  
Lie Algebras, Vertex Operator Algebras, and Related Topics  
*Co-PI*  
*Awarded*

\$47,000  
06/15 – 05/17
- **Simons Collaboration Grant for Mathematicians (Simons Foundation)**  
Irrational Vertex Algebras and Modular Forms  
*Sole PI*  
*The grant was effectively terminated on 09/01/16 as the awardee cannot hold the grant concurrently with an NSF grant.*

\$35,000  
09/14 – 08/19
- **National Science Foundation (NSF) Standard Conference Grant DMS-1301875**  
Representation Theory 2013  
*Sole PI*  
*Awarded*

\$21,000  
05/13 – 04/14
- **National Security Agency (NSA) Young Investigator Grant NSA-AMS 091113**  
Vertex Algebras and W-algebras  
*Sole PI*

\$23,623  
03/11 – 03/13
- **National Science Foundation (NSF) Standard Grant DMS-0802962**  
Algebraic and Number Theoretic Aspects of Vertex Algebra Theory  
*Sole PI*

\$85,550  
09/08 – 08/13



## RECENT INVITED TALKS 2019-

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1. CRNS-Luminy, France, tentative 2/26
2. Oberwolfach, Germany, tentative 2/26
3. RIMS, Kyoto, Japan, tentative 12/25
4. ICBS 2025, Beijing, tentative 7/25
5. Logarithmic CFT and tensor categories, BIRS-Banff, 7/25
6. Representation Theory XIX, Dubrovnik, 6/25
7. Canadian Mathematical Society Summer Meeting, Quebec City, 6/25
8. Conference on Quantum Groups and Representation Theory, NCSU, 10/24
9. ICBS, BIMS, Beijing, 07/24
10. Osijek University, Croatian Mathematical Congress, 07/24
11. Cologne University, Conference on Mock Modular Forms, 03/24
12. AMS Special Session on "Arc Spaces", Annual AMS meeting, 01/24
13. AMS Special Session on "Mock modular forms and Math Physics", Annual AMS meeting, 01/24
14. AMS Special Session on "Mock modular forms", Southwest section, Online 05/22
15. AMS Special Session on "Vertex Algebras", Southwest section, Online 05/22
16. Sofia Math Days, University of Sofia Climent Ohridski, Bulgaria, 07/23 , upcoming
17. Vertex Algebras and Representation Theory, CIRM-Luminy, France, 06/22
18. 100 Years of Mock Theta Functions, Vanderbilt University, 05/22
19. AMS Special Session on "Quantum topology and  $q$ -series", Southwest section, Online 05/22
20. AMS Special Session on "Vertex Algebras", Southwest section, Online 05/22
21. Scientific Colloquium of the Croatian Academy of Arts and Science, Zagreb (Online), 1/22
22. AMS Special Session on Quadratic Forms and Theta Functions, AMS annual meeting, Online, 04/22
23. Thematic program on Chiral and Vertex Algebras, IMPA Brasil, 03/22
24. Banff Workshop on "QFT and non-semisimple categories", Banff, Online, 11/21
25. Mathematics Colloquium, University of Denver (Online), 11/21
26. Online Conference on Vertex Algebras, Zoom, 03/21
27. Lie Groups, Quantum Mathematics Seminar, Rutgers University (Online), 2/21

28. Representation Theory Seminar, CUNY (Online), 2/21
29. Semester program on "Modularity in Mathematics and Physics", several short communications, KITP, UC Santa Barbara (online), 9-12/20
30. Rocky Mountains Representation Theory Seminar (Online), 10/20,
31. AMS Special session on Quantum Mathematics, University of Virginia, 3/20 (unofficial online talk, cancelled due to covid-19)
32. Geometry and Physics Seminar, Caltech, Pasadena, 10/19
33. Representation Theory, XV, Dubrovnik, Croatia, 6/19
34. Workshop on Modular forms and 3-manifolds , ICERM, Brown University, 3/19

## **CONFERENCES AND WORKSHOPS (CO)ORGANIZED**

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17. International Conference "Representation Theory XIX", IUC, Dubrovnik, Croatia; co-organizer, 6/25 .
16. AMS special session "Recent advances in Vertex Operator Algebras", co-organizer, 10/24 SUNY-Albany.
15. Women in Algebra Conference, co-organizer, 4/23 SUNY-Albany.
14. International Conference "Representation Theory XVIII", IUC, Dubrovnik, Croatia; co-organizer, 6/23 , upcoming.
13. International Conference "Representation Theory XVII", IUC, Dubrovnik, Croatia; co-organizer, 10/22 .
12. "Northeast Women in Algebra and Combinatorics Conference Celebrating the 50th Anniversary of the AWM", co-organizer, 11/21 Online.
11. Mini-Workshop: "Vertex Operator Algebras in Mathematics and Physics", SUNY-Albany, co-organizee, 4/19
10. International Conference "Representation Theory XVI", IUC, Dubrovnik, Croatia; co-organizer, 6/19
9. Algebraic and Geometric Methods in Conformal Field Theory, Nankai University, China, co-organizer , 6/19
8. International Conference "Representation Theory XV", IUC, Dubrovnik, Croatia; co-organizer, 6/17
7. Special Session on Vertex Algebra and Related Algebraic and Geometric Structures; co-organizer, 3/16,
6. International Workshop " Vertex Algebras and Quantum Groups"; co-organizer, Banff Center, Banff, Alberta, 2/16

5. International Conference "Vertex Algebras, Lie Algebras and Related Topics" ; co-organizer, University of Notre Dame, South Bend, 8/15
4. International Conference "Representation Theory XIV", IUC, Dubrovnik, Croatia; co-organizer, 6/15
3. International Conference "Representation Theory XIII", IUC, Dubrovnik, Croatia; co-organizer, 6/13
2. Special Session on Theory of Infinite-dimensional Lie algebras, vertex operator algebras and related topics; co-organizer, Cornell University, Ithaca, 9/11
1. Special Session on Theory of Infinite-dimensional Lie algebras, vertex operator algebras and related topics; co-organizer, Bard College, Annandale-on-Hudson, 10/05

## PHD THESES SUPERVISED

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1. Brandt Kronholm (jointly with G. Andrews, PSU) - (May 2010) Thesis title: "On Congruence Properties of  $p(n, m)$ "  
*Current position: Associate Professor (with tenure), University of Texas, Rio Grande*
2. Michael Penn - (May 2011) Thesis title: "Lattice vertex algebras and combinatorial bases"  
*Current position: Associate Professor (with tenure), Randolph College*
3. Scott Sidoli - (December 2017). Thesis title: "The  $N=1$  Singlet Vertex Superalgebra"  
*Current position: quant analyst, Bank of America*
4. Jesse Corradino - (November, 2018). Thesis title: "On the Geometric Interpretation of Certain Vertex Algebras and their Modules"  
*Current position: permanent lecturer at SUNY-Albany*
5. James Clark - (May 2020). Thesis title: "On unrolled quantum groups of  $\mathfrak{sl}_2$ "  
*Current position: Assistant Dean for Student Success, Merrimack College, MA.*
6. Josh Wauchope - (March 2020). Thesis title: "Permutation orbifolds of fermionic vertex superalgebras",  
*Current position: financial analyst at Alliance Risk*
7. Hao Li (jointly with C. Zhong) - (April 2021). Thesis title: "Associated schemes of vertex superalgebras and equivariant oriented cohomology"  
*Current position: postdoctoral associate at RIMS Kyoto.*

## CURRENT PHD STUDENTS

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1. Catherine Hall (2022-2024)
2. Amalia Jerison (2025-)
3. Zongzhong Li (2025-)

## **MASTERS STUDENTS SUPERVISED**

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1. Rob Raish – MSc 6/2010 “Thesis: Algebraic Boson-Fermion Correspondence”
2. Ryan LaBarge – MA 6/2014 “Research on Quantum Groups at roots of Unity”