

# Document 1: Curriculum Vitae

Hans Nordstrom  
Department of Mathematics

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## Professional Information and Teaching Experience

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### Academic Appointments

- Tenured Associate Professor, Department of Mathematics, University of Portland, 2011 - present
- Assistant Professor, Department of Mathematics, University of Portland, 2005 - 2011
- Graduate Teaching Fellow, Department of Mathematics, University of Oregon, Fall 1999 - Spring 2005

### Other Teaching Positions

- Peace Corps Volunteer, 1996-1998, (SS1-SS3 Mathematics and General Science Instructor) Sole instructor for all mathematics and general science courses at two rural schools in Ghana, West Africa. Syllabi for coursework comparable to grades 10-12 in U.S. Developed curricula using minimal resources for classroom demonstrations and labs. Held extracurricular courses in preparation for WAEC exams.
- Substitute Teacher, St. Peter School District, MN, 1998-1999. Covered fundamental curricula at the primary and secondary levels in mathematics and literacy for students with behavioral and learning disorders in montessori primary, junior and senior high school classes.

### Education

- Ph.D. in Mathematics, June 2005, University of Oregon, Eugene, OR.
  - Dissertation: *Associated Primes over Ore Extensions and generalized Weyl algebras*
  - Advisor: Brad Shelton
- M.S. in Mathematics, June 2001, University of Oregon, Eugene, OR.
- B.A. in Mathematics and English Literature, May 1996, Lewis & Clark College, Portland, OR

## Teaching Experience

- Courses Taught
  - Precalculus
  - University Math
  - Calculus for Biology & Life Sci.
  - Calculus I
  - Vector Calculus
  - Linear Algebra
  - Modern Algebra I
  - Game Theory
  - College Algebra
  - Business Calculus
  - Statistics
  - Calculus II
  - Discrete Structures
  - Number Theory
  - Modern Algebra II
- Independent Studies/Undergraduate Research Supervised
  - Introduction to Game Theory, Fall 2005
  - Game Theory: The Theory and Applications of Multiperson Decision Theory, Summer 2007
  - The Genus Level of a Group, Summer 2007 (with Aaron Wootton)
  - Studies in Combinatorial Game Theory, Summer 2009.
  - Modern Algebra I, Summer 2009.
  - Combinatorics & Game Theory, Spring 2013.
  - Graph Algebras, Summer 2018,

## Scholarly Activities

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### Publications

- *Leavitt path algebras over arbitrary unital rings and their two-sided ideals.* (with J. Lippert) *in preparation*
- *Leavitt path algebras over arbitrary unital rings and algebras* (with J.A. Firkins Nordstrom) *J. of Algebra and Its Applications*, *available online and to appear in print*
- *Simple modules over generalized Weyl algebras and their associated primes*, *Communications in Algebra*, 40 (9) (2012) 3224–3235.
- *The genus level of a group*, (with M. Arbo, K. Benkowski, B. Coate, C. Peterson & A. Wootton) *Involve, A Journal of Mathematics*, Volume 2, Issue 3, (2009) pp. 323–340
- *Associated primes over Ore extensions*, *J. Algebra*, 286 (1) (2005) 69–75.

### Grants

- External: **National Science Foundation grant DMS 0649068** (co-applicant), \$491,400, for WiVaM REU-RET consortium. Approximately \$110,000 awarded to UP over 3 years. Directed research projects during the 2007 and 2009 summer programs. Funding renewed for 2012-2014.

- Internal: **CAS SURE grant for collaborative undergraduate research** (\$7600 + student housing, Summer 2018)
- Internal: **Butine Fund grant for conference travel** (\$638, Spring, 2009)

### **Presentations**

- “Panel: Hiring Policies Discussion,” PNW MAA Meeting: Section NExT Program, *April 2018*
- “Leavitt path algebras over arbitrary rings and their prime ideals,” 1137th Meeting of the AMS *April 2018*
- “Leavitt path algebras over arbitrary unital rings,” 1073rd Meeting of the AMS: Special Session on Noncommutative Algebra, *September, 2011*
- “Parity Games: Odd-Wins and its generalizations,” Pacific University Mathematics Colloquium, *November 2009*
- “Some Strategies for Teaching Introductory Proof Techniques,” PNWMAA Meeting: Special Session on Learning to Prove, *April, 2009*
- “Panel: The Role of Technology in the Teaching of Mathematics,” PNWMAA Meeting: Section NExT program, *April, 2009*
- “Torsion-theoretic representations of generalized Weyl algebras,” 1041st AMS Meeting: Noncommutative Algebra and Geometry, *October 2008*
- “Associated primes over generalized Weyl algebras II,” 1024th AMS Meeting: Noncommutative Algebra, *March 2007*
- “Associated primes over generalized Weyl algebras, I,” PNWMAA Meeting: Junior Faculty Research, *June 2006*
- “Associated Primes over Generalized Weyl Rings,” 1012th AMS Meeting: Regular Algebras and Projective Geometry, *November 2005*
- “Associated primes over Ore extensions,” Joint AMS/MAA Meetings, *January 2005*
- “Prime Numbers, Prime Ideals, and Associated Primes,” Linfield College, Science Colloquium, *Oct 2004*
- “Generalizations of Primes in Noncommutative Algebra,” University of Portland, Mathematics Colloquium, *Oct 2004*

### **Research Interests**

- Algebra
  - Noncommutative rings and algebras
  - Representation theory

- Algebraic Geometry
  - Topological group actions on surfaces
  - Noncommutative algebraic geometry
- Combinatorial Game Theory

### **Conferences & Workshops Attended and Organized**

- Communicating Organizer of the Special Session on Geometry and Representation Theory of Quantum Algebras and Related Topics, **1153rd AMS Western Sectional Meeting**, *November 2019*,
- **Pacific Northwest MAA Meeting**, *April 2018*
- Communicating Organizer of the Special Session on Noncommutative Algebraic Geometry and Related Topics; presenter, **1137th AMS Western Sectional Meeting**, *April 2018*
- **Oregon Liberal Arts Mathematics Colloquium**, *October 2017*
- **1128th AMS Western Sectional Meeting**, *April 2017*
- **Northwest Undergraduate Mathematics Symposium**, *April, 2017*
- **Pacific Northwest MAA Meeting**, *April 2016*
- **Joint Mathematics Meeting (AMS/MAA)**, *January 2016*
- **Pacific Northwest MAA Meeting**, *April 2015*
- **Joint Mathematics Meeting (AMS/MAA)**, *January 2014*
- **Pacific Northwest MAA Meeting**, *April 2013*
- Local Arrangements Chair, **Pacific Northwest MAA Meeting**, *April 2012*
- **Pacific Northwest MAA Meeting**, *June 2011*
- Invited presenter, **1073rd AMS (Southeastern) Meeting**, *September, 2011*
- Contributed program co-chair, **Pacific Northwest MAA Meeting**, *April 2010*
- Contributed program co-chair, invited presenter, invited panelist, **Pacific Northwest MAA Meeting**, *April 2009*
  - Panelist: “The Role of Technology in the Teaching of Mathematics,” Project NExT program.
- Invited presenter, **1041st AMS (Western) Meeting**, *October 2008*
- **Pacific Northwest MAA Meeting**, *June 2008*
- “Pursuing a Successful Career in Graduate School” Willamette Valley REU Panel Discussion, University of Portland, July 2007

- NExT local arrangements chair, panel organizer, **Pacific Northwest MAA Meeting**, *April 2007*
  - Panel organized, with Cristina Negoita, Oregon Institute of Technology: “Effective use of technology in the classroom and on-line,” Project NExT program.
- Invited presenter, **1024th AMS (Southeastern) Meeting**, *March 2007*
- Presenter, Junior Faculty Research Session, **Pacific Northwest MAA Meeting**, *June 2006*
- Invited presenter, **1012th AMS (Western) Meeting**, *November 2005*
- **Pacific Northwest MAA Meeting**, *March 2005*
- **Pacific Northwest MAA Meeting**, *June 2004*

### **Undergraduate Research Supervised**

- “Noncommutative Algebra: Graph Algebras,” Faculty mentor, University of Portland. [Funded by internal CAS-SURE grant]
- “The Combinatorial Game ‘Odd-Wins’, ” REU faculty mentor, University of Portland/Linfield College, Summer 2009 [Funded by external NSF REU/T grant DMS 0649068]
- “Group Actions of Genus Levels 1 and 2,” REU faculty mentor, University of Portland, Summer 2007 (with Aaron Wootton) [Funded by external NSF REU/T grant DMS 0649068]

## **Service**

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### **University Service**

- Committee on Committees, *Spring 2020 - present*
- Presidential Advisory Committee on Health & Safety, *Fall 2019 - present*
- Faculty Welfare Committee, *Fall 2016 - Spring 2017*
- UCCC assessment committee, *Fall 2013 - Spring 2017*
- System Administration and Support subcommittee chair, Presidential Advisory Committee on Information Technology *Fall 2012 - present*
- Science Division Representative, Academic Senate, *Spring 2008 - 2011*
- Member, Senate Representative, Presidential Advisory Committee on Health and Safety, *Fall 2008 - 2011*
- Honors Mentor, *Spring 2007 - 2010*
- Academic Advisor (Undeclared), *Fall 2006 - present*

## Department Service

- Assessment Coordinator, Group Theory (MTH 441, formerly Modern Algebra I), *2010-present*.
- Hiring Committee, Calculus Instructor, Spring 2018.
- Member of the Calculus Curriculum Review Committee (Calculus Cabal), *Spring 2017- Fall 2019*
- JMM interviewer, *Jan 2016*
- Chair, Hiring Committee for Applied Mathematics tenure track position #2; Member, Hiring Committee for tenure track position#1, *Fall 2014 -Spring 2015*
- Director of the Math Resource Center, *Fall 2006 - Spring 2015*
- Faculty Advisor for mathematics majors (2008-present)
- Member of the Mathematics Search Committee, (2008-09)
- Member of the Calculus Text Selection Committee, (2007)

## Professional Service

- Chair Elect, PNW MAA section, *May 2019*
- Local Arrangements and Invited Program Chairs, **Pacific Northwest MAA Meeting**, *April 2019*
- Local Arrangements Chair, **Pacific Northwest MAA Meeting**, *April 2012*
- Contributed program co-chair, PNW MAA Meeting, *April 2010*
- Contributed program co-chair, PNW MAA Meeting, *April 2009*
- Referee for *Beiträge zur Algebra und Geometrie (Contributions to Algebra and Geometry)*, a European Mathematical Society journal, est. 1971.
- Referee for *Matematički Vesnik*, a journal of the Mathematical Society of Serbia, est. 1949.
- Panel Organizer (with Cristina Negoita, Oregon Institute of Technology): “Effective use of technology in the classroom and on-line,” Project NExT program. PNW MAA, *April 2007*

## Community Service

- Board President, Yamhill-Carlton Together Cares (YCTC)
- Cubmaster, Pack 7276; (cpcbsa.org)
- Coach, Mentor, Lego League & Lego League Jr., (ORTOP/Firstinspires.org)
- Runner, Wild Rogue Relay (2014-present), supports Rogue Riverkeepers.
- Runner, Shamrock Run (2006-present), benefits Doernbecher Children’s Hospital.

- Freshman Service Day (Serving to Learn) Supervisor & Discussion leader, *Fall 2005 - 2009, 2012-2014*.
- Problem co-author for HP- $\Sigma$  Invitational Math Contest.

## **Other Information**

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### **Awards, Honors and Fellowships**

- Pacific Northwest Regional Project Next Fellow, *awarded 2006*.

### **Professional Memberships**

- Member of the AMS (American Mathematical Society)
- Member of the MAA (Mathematical Association of America)