

JONATHAN TOTUSHEK

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CONTACT

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EDUCATION

SUMMER 2015 Ph.D. in MATHEMATICS, **North Dakota State University**, Fargo ND.
Advisor: Sean Sather-Wagstaff
Dissertation: "Homological Dimensions with Respect to a Semidualizing Complex"
SPRING 2009 Bachelor of Science in MATHEMATICS
Cum Laude, **Regis University**, Denver CO.
Advisor: James Seibert

POSITIONS IN MATHEMATICS

FALL 2016 - Assistant Professor at UNIVERSITY OF WISCONSIN-SUPERIOR
PRESENT

FALL 2015 - Visiting Assistant Professor at UNIVERSITY OF WISCONSIN-SUPERIOR
SPRING 2016

FALL 2013 - Graduate Research Assistant at NORTH DAKOTA STATE UNIVERSITY
SUMMER 2015 Research funded from North Dakota EPSCoR.

SUMMER 2011 - NDSU Mathematics Computer Lab Manager
SUMMER 2012

SPRING 2010 - Mathematics Genealogy Project Data Manager
PRESENT www.genealogy.math.ndsu.nodak.edu

FALL 2009- Graduate Teaching Assistant at NORTH DAKOTA STATE UNIVERSITY
SUMMER 2013

AWARDS AND ACKNOWLEDGMENTS

JULY 2013: North Dakota EPSCoR Doctoral Disertation Assistantship

RESEARCH

INTERESTS: Commutative Algebra, Homological Algebra, Ring Theory

PUBLICATIONS:

1. *Cosmic ray muon flux at the Sanford Underground Laboratory at Homestake*, with F. Gray, C. Ruybal, D.-M. Mei, K. Thomas, and C. Zhang, Nucl. Instr. and Meth. A (2011), doi:10.1016/j.nima.2011.02.032
2. *Using semidualizing complexes to detect Gorenstein rings*, with S. Sather-Wagstaff, Archiv der Mathematik (Basel), (2015).
3. *Homological dimensions with respect to a semidualizing complex*, Journal of Commutative Algebra (2016).
4. *Complete intersection homological dimensions with respect to a semidualizing complex*, with S. Sather-Wagstaff In preparation.
5. *A variation on the complete intersection injective dimension*, with S. Sather-Wagstaff In preparation.

INVITED CONFERENCE LECTURES

- 2009 - APS Special Session on Dark Matter Searches,
APS APRIL MEETING, Denver, CO
- 2014 - AMS Special Session on Commutative Ring Theory,
UNIVERSITY OF WISCONSIN-EAU CLAIRE
- 2015 - AMS Special Session on Syzygies,
JOINT MATHEMATICS MEETINGS, San Antonio, TX
- 2016 - AMS Special Session on Commutative Algebra,
UNIVERSITY OF GEORGIA, Athens, GA
AMS Special Session on Commutative Ring Theory,
STATE UNIVERSITY OF NEW YORK, Stony Brook, NY
AMS Special Session on Commutative Ring Theory,
NORTH DAKOTA STATE UNIVERSITY, Fargo, ND
AMS Special Session on Homological Methods in Commutative Algebra,
NORTH CAROLINA STATE UNIVERSITY, Raleigh, NC

DEPARTMENT SEMINARS AND COLLOQUIA

- 2013 - Mathematics Department Junior Colloquium, NORTH DAKOTA STATE UNIVERSITY
2014 - Algebra and Discrete Mathematics Seminar, NORTH DAKOTA STATE UNIVERSITY

OTHER LECTURES

- 2011 - NDSU Math Club, *Calculating π*
2015 - NDSU Math Club, *"Sweet" Clyde's Inversion Theorem (a.k.a. Keeler's Theorem)*
UW-Superior Math and Computer Science Club, *The Game of Nim*

TEACHING AT UNIVERSITY OF WISCONSIN-SUPERIOR

AS PRIMARY INSTRUCTOR:	Calculus and Analytic Geometry II	(Fall 2015 & Fall 2016)
	Introduction to Abstract Mathematics	(Fall 2015 & Spring 2016)
	Topics in Geometry	(Fall 2015)
	Introduction to Contemporary Mathematics	(Spring 2016 & Fall 2016)
	Statistics	(Fall 2016)
	Introduction to Computer Science	(Fall 2016)

TEACHING AT NORTH DAKOTA STATE UNIVERSITY

AS PRIMARY INSTRUCTOR:	Trigonometry	(Summer 2013)
	Applied Calculus	(Summer 2010)
	Calculus II	(Summer 2012)
	Calculus III	(Summer 2011)
AS RECITATION INSTRUCTOR:	College Algebra	(Spring 2013)
	Trigonometry	(Fall 2010 & Spring 2013)
	Applied Calculus	(Fall 2009 & Fall 2011)
	Calculus I	(Fall 2010)
	Calculus II	(Fall 2009, Spring 2010 & Spring 2012)
	Calculus III	(Spring 2011)

DEPARTMENT SERVICE

FALL 2013 - SPRING 2015:	Organizer of the NDSU Junior Colloquium www.ndsu.nodak.edu/pubweb/~totushek/colloquiumjr/
FALL 2013 - SPRING 2014:	New Faculty Search Committee Member (NDSU)
FALL 2015 - PRESENT	Attend and participate at UW-S department meetings
SPRING 2016 - PRESENT	Organizer of the UW-Superior High School Math Meet
FALL 2016 - PRESENT	Organizer of the Duluth Superior Sonia Kovalevsky Day
FALL 2016 - PRESENT	UW-S department liaison for recruitment and retention
FALL 2016 - PRESENT	Advisor to the UW-S Mathematics and Computer Science Club

SERVICE TO THE COMMUNITY

APRIL 2015: Math Fair presenter - visit and present mathematics at local elementary schools.

MEMBERSHIPS

American Mathematical Society