

## PAOLO MANTERO

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### EDUCATION

Ph. D. in Mathematics, advisor: <i>Prof. Bernd Ulrich</i>	Purdue University	August 2012
M. Sc. in Mathematics, <i>summa cum laude</i>	University of Genova (Italy)	July 2006
B. Sc. in Mathematics, <i>summa cum laude</i>	University of Genova (Italy)	September 2004

### ACADEMIC EMPLOYMENT

Assistant Professor	University of Arkansas	Aug. 2015 – present
Visiting Assistant Professor	University of California at Riverside	Jan. 2013 - July 2015
Post-doctoral Research Member	Math. Sc. Res. Inst. (MSRI), Berkeley, CA	Fall 2012

### HONORS AND GRANTS

New Faculty Commendation	U. Arkansas Faculty Support Center	September 2017
Excellence in Teaching Award	UC Riverside, Mathematics Department	June 2015
Excellence in Teaching Award	UC Riverside, Mathematics Department	June 2014
AMS-Simons Travel Grant	American Mathematical Society	July 2013–July 2015
Post-Doctoral Research Membership	MSRI	Fall 2012
Bilsland Dissertation Fellowship	Purdue University, College of Science	Aug. 2011-Aug. 2012
MRC Research Grant	American Mathematical Society	June-July 2010
INDAM Italian National Fellowship	INDAM, Istituto Francesco Severi	Aug. 2004- Aug. 2006

### PUBLICATIONS

13. *The projective dimension of 3 cubics is at most 5*, with Jason McCullough, J. Pure and Appl. Algebra **223** (2019), 1383–1410.
12. *A tight bound on the projective dimension of 4 quadrics*, with Craig Huneke, Jason McCullough and Alexandra Seceleanu, J. Pure and Appl. Algebra **222** (2018), 2524–2551.
11. *A finite classification of  $(x, y)$ -primary ideals of low multiplicity*, with Jason McCullough, Collect. Math. **69** (2018), 107–130.
10. *Chudnovsky’s conjecture for very general points in  $\mathbb{P}^N$* , with Louiza Fouli and Yu Xie, J. Algebra **498** (2018), 211–227.
9. *Hypergraphs with high projective dimension and 1-dimensional Hypergraphs*, with Kuei-Nuan Lin, Internat. J. Algebra Comput. **27** (2017), 591–617.
8. *Arithmetical rank of strings and cycles*, with Kyouko Kimura, J. Commut. Algebra **9** (2017), 89–106.
7. *Multiple structures with arbitrary large projective dimension supported on linear subspaces*, with Craig Huneke, Jason McCullough and Alexandra Seceleanu, J. Algebra **447** (2016), 183–205.
6. *Projective dimension of string and cycle hypergraphs*, with Kuei-Nuan Lin, Comm. Algebra **44** (2016), 1671–1694.
5. *Generalized stretched ideals and Sally’s Conjecture*, with Yu Xie, Journal of Pure and Applied Algebra **200** (2016), 1157 – 1177.
4. *A multiplicity bound and a criterion for the Cohen-Macaulay property*, with Craig Huneke, Jason McCullough and Alexandra Seceleanu, Proc. Amer. Math. Soc. **143** No. 6 (2015), 2365 – 2377.
3. *Ubiquity of complete intersection liaison classes*, with Mark Johnson, Illinois J. Math. **58**, No. 3 (2014), 647

2. *The projective dimension of codimension two algebras presented by quadrics*, with Craig Huneke, Jason McCullough and Alexandra Seceleanu, *J. Algebra* **393** (2013), 170-186.

1. *On the Cohen-Macaulayness of the conormal module of an ideal*, with Yu Xie, *J. Algebra* **372** (2012) 35-55.

### INVITED TALKS

45. Instructor for the MSRI graduate school <i>Linkage and Residual Intersections</i>	University of Notre Dame	June 2019 (upcoming)
44. AMS Special Session	University of Delaware	September 29, 2018
43. Commutative Algebra Seminar	University of Michigan	April 5, 2018
42. AMS Special Session	University of North Texas	September 10, 2017
41. BIRS-CMO Workshop (declined)	Oaxaca (Mexico)	May 14, 2017
40. AMS Special Session	Hunter College, NY	May 6, 2017
39. Algebra Seminar	Tulane University	March 23, 2017
38. Commutative Algebra Seminar	University of California, Riverside	May 25, 2016
37. AMS Special Session	University of Georgia	March 5, 2016
36. Algebra Seminar	University of Missouri, Columbia	February 15, 2016
35. Colloquium Talk	DePaul University	February 2, 2015
34. Colloquium Talk	New Mexico State University	January 16, 2015
33. JMM Special Session	San Antonio, TX	January 10–13, 2015
32. Colloquium Talk	University of Arkansas	December 11, 2014
31. AMS Special Session	San Francisco State University	October 26, 2014
30. AMS Special Session	University of New Mexico	April 6, 2014
29. Commutative Algebra Seminar	Purdue University	March 13, 2014
28. Algebra Seminar	New Mexico State University	March 3, 2014
27. Seminario di Algebra e Geometria	University of Genova (Italy)	December 17, 2013
26. Algebra Seminar	University of Arkansas	October 28, 2013
25. AMS Special Session	University of Louisville	October 6, 2013
24. Commutative Algebra Seminar	Purdue University	September 10, 2013
23. Commutative Algebra Seminar	Purdue University	March 26, 2013
22. SLAM '13 (plenary speaker)	University of Arizona	March 3, 2013
21. Algebra Seminar	New Mexico State University	February 25, 2013
20. Joint Mathematics Meeting	San Diego, CA	January 9, 2013
19. Commutative Algebra Seminar	Purdue University	November 19, 2012
18. Algebra Seminar	Tulane University	October 24, 2012
17. Mathematical Sciences Research Institute Seminar	MSRI (Berkeley, CA)	October 12, 2012
16. Mathematical Sciences Research Institute Seminar	MSRI (Berkeley, CA)	October 1, 2012
15. Commutative Ring Theory Seminar	University of Illinois	April 12, 2012
14. Commutative Algebra Seminar	University of Nebraska	April 4 and 5, 2012
13. AMS Special Session	University of Kansas	March 30, 2012
12. Algebra Seminar	New Mexico State University	March 7, 2012
11. Algebra Seminar	University of Kansas	February 22, 2012.
10. Algebra and Geometry Seminar	University of Kentucky	January 26, 2012
9. Seminario di Algebra e Geometria	University of Genova (Italy)	January 12, 2012
8. Seminario di Algebra e Geometria	University of Genova (Italy)	January 10, 2012
7. Algebra and Geometry Seminar	University of Basel (Switzerland)	December 16, 2011
6. Algebraic Geometry Seminar	University of Notre Dame	November 9, 2011
5. Algebra and Geometry Seminar	University of Kentucky	November 1, 2011
4. Algebra Seminar	University of Kansas	October 18, 2011
3. AMS Special Session	University of Nebraska	October 15, 2011
2. Algebraic Geometry Seminar	University of Notre Dame	October 12, 2010

**PH.D. STUDENTS SUPERVISED**

1. Jesse Keyon – Summer 2020 (expected), University of Arkansas.

**PROFESSIONAL SERVICE**

- Elected member of the **MSRI CAS** (Committee of Academic Sponsors) – since August 2017
- Elected member of the **MSRI CAS Subcommittee on Summer Graduate Schools** (3 years term) – August 2018 – August 2021

**Co-organizer** of the following mathematical events, conferences and workshops:

AMS Meeting Special Session	University of Arkansas	November 3–4, 2018
Southwest Local Algebra Meeting – SLAM ‘18	University of Arkansas	April 2018
U of A 42nd Spring Lecture Series	University of Arkansas	March 2018
U of A 41st Spring Lecture Series	University of Arkansas	March 2017
AMS Meeting Special Session	Loyola University, Chicago, IL	October 3–4, 2015
AMS Meeting Special Session	UC Riverside	November 2–3, 2013
Algebra Seminar	University of Arkansas	2015 – present
Commutative Algebra Seminar	University of California at Riverside	2013 – 2015

**Referee and Reviewer work:**

Referee for *J. Algebra*  
 Referee for *J. Algebra Appl.*  
 Referee for *J. Algebraic Combinatorics*  
 Referee for *J. Arkiv for Matematik*  
 Referee for *J. Comm. Algebra*  
 Referee for *J. Pure and Applied Algebra*  
 Referee for *Glasgow Math. Journal*  
 Referee for *IJAC – Internat. J. Algebra Comput.*  
 Referee for *Proc. Amer. Math. Soc.*  
 Referee for *Rocky Mountains J. Math.*  
 Referee for *Trans. Amer. Math. Soc.*

Reviewer for *Math. Zentralblatt* 2011 – present  
 Reviewer for *Math. Reviews* 2014 – present

**MEMBERSHIP**

American Mathematical Society, since 2006.