

## Curriculum vitae

**Guardo Elena**  
**Università degli Studi di Catania**

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### Address

**Dipartimento di Matematica e Informatica**

**Viale Doria 6**

**Cap 95100 Città Catania Prov. CT**

**Paese Italy**

### Academy

From March 1<sup>st</sup>, 2022 to present

Full Professor **Mat/03 Geometry (Scientific sector 01/A2 Algebra and Geometry)**

### Education

**From Nov 1<sup>st</sup>, 2014 to February 28, 2022**

**Associate Professor Mat/03 Geometry (Scientific sector 01/A2 Algebra and Geometry)**

March, 30 2017 to March 2023 National Scientific Habilitation for full professor **Mat/03 Geometry (Scientific sector 01/A2 Algebra and Geometry)**

**01/March/2002 – 31/October 2014** Permanent Researcher Mat03 – Geometria Engineering Faculty -Università di Catania

**2000**: Ph.D in Mathematics at Università di Messina, Italy.

Thesis Title: *Schemi di Fat Points* , Supervisor: Prof. Alfio Ragusa.

**1993**: Graduation in Mathematics with marks 110/110 cum laude - Università di Catania, Italy.

Thesis Title: *Ideali con Numeri di Betti Massimi* , Supervisor: Prof. Alfio Ragusa;

### Fellowships

1994/95: Fellowship “Mino Bontempelli 1994”, Accademia Nazionale dei Lincei - Rome, Italy

1995/96: Fellowship from Università di Catania, Outgoing Visiting researcher at Queen's University - Kingston - ON – Canada for one year

1996, March/June - Visiting at Università di Genova, Italy, Supervisor: Prof. A.V. Geramita.

1996/2000: PhD student in Mathematics at Università di Catania. Administrative University: Messina - Italy.

2001-2003: post-doc Research Associate, Department of Mathematics, Università di Catania.

April 2005 to May 2005 – Fellowship from University of Catania - Visiting researcher at Department of Mathematics, University of Nebraska, Lincoln USA under the supervision of prof. B. Harbourne

## GRANTS

- 2003 Grant from GNSAGA- to Lincoln Nov/Dic 2003 to visit Prof. B. Harbourne at il Department of Mathematics, University of Nebraska, USA and Prof. A. Van Tuyl at Lakehead University, Thunder Bay, Canada.
- 2004 Grant 1.300,00Euro from Indam - GNSAGA to Lincoln 19/7-6/8/2004 to vist Prof. B. Harbourne at il Department of Mathematics, University of Nebraska, Lincoln, USA.
- 2005 Grant 5000 Euro from 'Università di Catania to visit Prof. B. Harbourne, Department of Mathematics, University of Nebraska, USA.
- 2009 Grant 1.450,00 Euro from Indam- GNSAGA, to invite prof. Adam Van Tuyl, Lakehead University, Thunder Bay, Canada at il Dipartimento di Matematica e Informatica di Catania (PI: E. Guardo, co-PI: Prof. A.V. Geramita – Queen’s University, Canada/ Università di Genova, Italy)
- 2012, Grant 1.750,00 Euro from Indam- GNSAGA to invite prof. Adam Van Tuyl, Lakehead University, Thunder Bay, Canada at il Dipartimento di Matematica e Informatica di Catania (PI: Dott. E. Carlini, Politecnico di Torino, co-PI E. Guardo)
- Anno 2012 – Principal investigator: Ripartizione risorse destinate al finanziamento dei ricercatori - anno 2012 – Progetto: “ **Potenze simboliche (fat points) e regolari di ideali di punti in  $\mathbb{P}^n$  ed in  $\mathbb{P}^{n_1 \times \dots \times \mathbb{P}^{n_k}}$** ”
- 2016, Grant Euro 1100,00 from Indam- Gnsaga to visit il Prof. A. Van Tuyl at McMaster University – Hamilton - Canada and to partecipare workshop at Field Institute di Toronto - Canada on Combinatorial Algebraic Geometry in Agosto 2016 (three weeks)
- 2017 Grant 900,00Euro to partecipare at CMO workshop 2017 – Oaxaca (MX)
- **PI of research Projects**
- PI of the funded project: “Potenze simboliche (fat points) e regolari di ideali di punti in  $\mathbb{P}^n$  ed in  $\mathbb{P}^{n_1 \times \dots \times \mathbb{P}^{n_k}}$ . -PRA Università di Catania - Ripartizione risorse destinate al finanziamento dei ricercatori - 2012
- PI of the funded project “New Trends in Geometry, Topology and Combinatorics” finanziato, two years. – Piano di Ricerca 2016- 18
- PI of the funded project “New Trends in Combinatorics, Geometry and Topology towards applications”, two years. – Progetto Piaceri 20/22
- **PI of “Borsa di ricerca”, Title Hadamard product and symbolic powers, bando D.R. n. 3158 del 17 Settembre 2021. Scientific Responsible Prof.ssa E. M. Guardo;**

## PhD Students supervisor

- 1 November 2016 to August 2020 Supervisor Post Doc "Weak Lefschetz Property, Interpolation Problem in multiprojective spaces and connection with Algebraic Combinatorics", dott. G. Favacchio.
  - 2 AA 2015 - 2018 - Supervisor PhD XXXI Ciclo, dott.ssa M. C. B. Picone: "Homological invariants of some special varieties" Supervisor Relatore Prof.ssa E. Guardo, Co Supervisor: Prof. A. Van Tuyl (McMaster University – Canada)
  - 3 September 2017 Referee/committee PhD Thesis in Mathematics "The effect of points fattening del Pezzo surfaces" -Magdalena Lampa - Baczynska - Supervisor: Prof. Tomasz Szemberg
  - 4 October 2015 – Second referee/co supervisor PhD Thesis "Kahler Differential Algebras for 0-dimensional Schemes and Applications" Mrs Tran Nguyen Khanh Linh
- Erstgutachter: Prof. Dr. Martin Kreuzer - Zweitgutachter: Prof. Dr. Elena Guardo -Mundliche Pruffer: Prof. Dr. Tobias Kaiser, Prof. Dr. Brigitte Forster-Heinlein Der Fakultat fur Informatik und Mathematik der Universit at Passau (Germany).
- 5 Supervisor of many theses for the first level students in Mathematics.
  - 6 October 1-29, 2022 Co-Supervisor of PhD Student Paulina Wisniewska, "Asymptotic invariants of configurations of points determined by complex reflection groups" Supervisor Prof. Szemberg Tomasz (Poland)

## Refereeing and Reviews

- Reviewer for Mathematical Reviews and Zentralblatt Math. (since 2004).
- Referee for NSA-AMS Proposals, for several journals and conference proceedings:
- Referee for National Science Centre (Narodowe Centrum Nauki - NCN; <http://www.ncn.gov.pl>).
- - 2013 - 2016 Membro Editorial Board THE SCIENTIFIC WORLD JOURNAL (ISSN: 2356-6140)
- Applied Mathematics Scientific Research Publishing <http://www.scirp.org/journal/am> - **ISSN Print:2152-7385 ISSN Online:2152-7393**
- Journal of Algebra, Combinatorics, Discrete Structures and Applications (JACODESMATH) J. Algebra Comb. Discrete Appl. / ISSN: 2148-838X <http://jacodesmath.com>
- Journal of Mathematics - <https://www.hindawi.com/journals/jmath/ai/>
- Annals of Mathematical Modeling <http://ejournal.ressi.id/index.php/ijime>, <https://ejournal.ressi.id/index.php/aam/about/editorialTeam>

- Open Journal of mathematical Sciences (OMS) <https://pisrt.org/psr-press/journals/oms/editorial-board/>
- Mathematics (MPDI) [https://www.mdpi.com/journal/mathematics/sectioneditors/algebraic\\_geometry](https://www.mdpi.com/journal/mathematics/sectioneditors/algebraic_geometry)
- Axioms <https://www.mdpi.com/journal/axioms/editors>

### Conference organization

- Organizzazione Pi Day 14 marzo 2022 [web.dmi.unict.it/it/notizie/pi-day-giornata-internazionale-del-pi-greco-e-della-matematica](http://web.dmi.unict.it/it/notizie/pi-day-giornata-internazionale-del-pi-greco-e-della-matematica)
- September 7-9, 2022 [Workshop on Commutative Algebra and Algebraic Geometry](https://sites.google.com/view/workshop-ca-ag-catania-2022/home), dedicated to Saro Strano, Dipartimento di Matematica e Informatica, Catania <https://sites.google.com/view/workshop-ca-ag-catania-2022/home>
- March 2018 workshop “IPPI 2018 – Post Pragmatic 2017” - Politecnico di Torino, organizers: E. Carlini, G. Casnati, E. Guardo, A. Oneto, A. Ragusa
- Pragmatic 2017 – Summer school – Catania Organizers: E. Guardo, A. Ragusa,, F. Russo, G. Zappalà
- September 2016 – Organizzazione del workshop “Algebra and Geometry in Catania” in onore del 70.mo compleanno del Prof. A. Ragusa. Organizers: E. Guardo, M. D’Anna, F. Russo, G. Zappalà
- February 2015 - Mathematisches Forschungsinstitut Oberwolfach - Organizzazione del Mini-Workshop: Ideals of Linear Subspaces, Their Symbolic Powers and Waring Problems in collaborazione con E. Carlini, C. Bocci, B. Harbourne

### PI or member of national scientific programs:

- From 1994 - present, member GNSAGA.
- 1994, member del Progetto Nazionale ex 40%, responsabile: Prof. R. Strano;
- 1994, member del Progetto ex 60%, responsabile: Prof. A. Ragusa;
- PRIN 2003 Member Programma di ricerca cofund "Algebra commutativa e computazionale" - Coord. scient. Prof. G. Valla, Resp. scient. Prof. R. Strano.
- PRIN 2005 Member Programma di ricerca cofund "Algebra commutativa, combinatoria e computazionale" - Coord. scient. Prof. G. Valla, Resp. scient. Prof. R. Strano.
- PRIN 2007: Member del PROGETTO DI RICERCA cofund ",Algebra Commutativa e Combinatoria con applicazioni alla Geometria Algebrica", PI Prof. G. Valla,
- PRIN 2010-11: Member del PROGETTO DI RICERCA cofund " Geometria delle Varietà algebriche" PI. Prof. A. Verra, Resp. prof. F. Russo.
- Member del Progetto GNSAGA - INDAM : “Numeri di Betti di Algebre graduate”. PI. Prof. A. Ragusa. Sedi: Catania - Messina – Reggio Calabria.

- PRA 2000 2011, Member del PROGETTO DI RICERCA FINANZIABILE CON FONDI DI ATENEO, Resp. Scient.: Prof. A. Ragusa "Metodi algebrici, omologici e computazionali nello studio delle varietà algebriche.
- Anno 2012 – Main PI Research Project: “Potenze simboliche (fat points) e regolari di ideali di punti in  $P^n$  ed in  $P^{n_1 \times \dots \times n_k}$ .” - Università di Catania - Ripartizione risorse destinate al finanziamento dei ricercatori - anno 2012.
- Fir 2014, Member, Main PI. Prof. F. Russo.
- PRIN 2015: Member PROGETTO DI RICERCA cofund " Geometria delle Varietà algebriche" Coord. Prof. A. Verra, Resp. prof. F. Russo
- Prin 2020 Member, Main PI. Prof. F. Russo

### Main International Schools

- 24 Luglio / 27 Agosto 1994: International Summer School “Corso Estivo di Matematica di Perugia -1994”, Algebra and Differential Geometry;
- 13/26 Agosto 1995: International Summer School “Corso Estivo di Matematica di Cortona” Algebraic Geometry;
- 12 Maggio / 14 Giugno 1997: International summer school Pragmatic '97 - Proff. D. Einsebud e S. Popescu – Dipartimento di Matematica di Catania;
- 12/30 Gennaio 1998 The Intensive Course on Groebner Bases - Research Institute for Symbolic Computation - Linz (Austria);
- 5 Giugno / 2 Luglio 1998: International summer school Pragmatic '98 on “Linear System and Vanishing Theorems” Prof. L. Ein - Dipartimento di Matematica di Catania;
- 7/23 Giugno 2000: International School Pragmatic 2000 - Proff. A.V. Geramita, J. Migliore - A. Bigatti - C. Peterson. - Dipartimento di Matematica di Catania
- Giugno 2001: Interntional School Pragmatic 2001 - Proff. C. Ciliberto - R. Miranda - Dipartimento di Matematica di Catania
- Agosto 2016: Introductory workshop on Combinatorial Algebraic Geometry, Field Institute, Toronto – Canada.

### Conferences, invited talks, posters selected from 2015

#### Upcoming 2023

- 1) Cocoa School – Invited speaker – Hue University -Vietnam
- 2) BrianFest - invited speaker – University of Nebraska USA

#### 2022

- 5th Catania Combinatorial Conference, HyGraDe 2022, Catania 6-8 Luglio 2022. <http://ccc2022.dmi.unict.it/> Bonacini, Marino, Gionfriddo (fondi Starting Grant)

- September 7-9, 2022 [Workshop on Commutative Algebra and Algebraic Geometry](https://sites.google.com/view/workshop-ca-ag-catania-2022/home), dedicated to Saro Strano, Dipartimento di Matematica e Informatica, Catania <https://sites.google.com/view/workshop-ca-ag-catania-2022/home>
- October 1-29, 2022 Co-Supervisor of PhD Student Paulina Wisniewska, "Asymptotic invariants of configurations of points determined by complex reflection groups" Supervisor Prof. Szemberg Tomasz (Poland)
- Talk online - Mini-Workshop: Subvarieties in Projective Spaces and Their Projections. 27 Nov. – 3 Dec 2022- Organizers Bauer T., Favacchio G., Migliore J, Szpond

## 2021

Luglio 2021 Eunice Symposium on Pure and Applied Mathematics - Combinatorics and geometry towards applications – Speaker at <http://web.dmi.unict.it/it/content/simposio-1st-eunice%E2%80%9393-symposium-pure-applied-mathematics-2021> (Guardo)

## 2020

Visiting at Politecnico di Torino for research collaboration with E. Carlini e M.V. Catalisano  
30 Gen-4 Feb 2020

## 2019

- 6/10 Dicembre 2019 Invited Speaker CMS meeting Commutative Algebra <https://winter19.cms.math.ca/index.php/sessions/> Toronto, (Canada)
- Agosto 2019: Visiting presso la Notre Dame University (USA) su invito del prof. J. Migliore per collaborazione alla ricerca
- 7/14 Aprile 2019 Prof. Yong-Su Shin, (Sungshin Women's University, Seoul, South Korea) invitato presso il Dipartimento di Matematica e Informatica (DMI), talk: "Artinian quotients having Lefschetz property"
- 7/13 marzo 2019 Prof. Juan Migliore (University of Notre Dame, IN, USA) invitato presso il DMI, Talk: Unexpected Hypersurfaces
- 7/13 marzo 2019 Prof. Brian Harbourne (University of Nebraska, NE, USA), invitato presso il DMI ,Talk: Line arrangements with applications to recent work in Algebraic Geometry and Commutative Algebra
- 31 Gennaio- 2 Feb. Prof. E. Carlini (Politecnico di Torino) invitato presso il DMI per collaborazione alla ricerca

## 2018

- Novembre 2018 Main speaker “Commutative Algebra and Representation Theory” at Tulane University in New Orleans 8- November 11, 2018
- Partecipazione su invito mini-workshop "Asymptotic invariants of homogeneous ideals". 30 September - 6 October 2018 at the Mathematisches Forschungsinstitut Oberwolfach (MFO), Germany. Organizzato da Bauer T., Susan Cooper S., Harbourne B., Szpond J.

- Agosto 2018 Prof. Bernd Sturmfels (MPI Leipzig, UC Berkeley) invitato presso il DMI, talk: "Learning Algebraic Varieties from Samples".
- 19 Giugno 2018 Prof. Yong-Su Shin (Sungshin Women's University, Korea), invitato presso il DMI, talk: The Strong Lefschetz Property and Representation Theory.
- 19/26 gennaio 2018 il Prof. Luca Chiantini (Universita' di Siena) invitato presso il DMI, talk: "Funzioni di Hilbert e analisi tensoriale"
- Marzo 2018 workshop Marzo 2018: "IPPI 2018 – Post Pragmatic 2017" presso il Politecnico di Torino, organizzatori: E. Carlini, G. Casnati, E. Guardo, A. Oneto, A. Ragusa
- Invited speaker at Canadian Mathematical Society's 2018 Winter Meeting, special session "Symbolic and Regular Powers of Ideals." December 7-10, 2018, Vancouver, British Columbia.

### 2017

- Marzo 2017 Invited speaker al Workshop "Local Negativity and Positivity" at Leibniz Universitat Hannover – Germania
- Maggio 2017 Invited speaker al CMO Workshop "Ordinary and Symbolic powers of Ideals"

### 2016

- Gennaio 2016 quartiche piane, mappa di scorza ed argomenti correlate, Catania 19-21 gennaio 2016
- Aprile 2016 Invited Speaker a American Mathematical Society 2016 Spring Central Sectional Meeting – North Dakota State University – Fargo – ND – USA
- Giugno 2016 Invited Speaker al GVA2016 – Levico terme (TN) Italy
- Agosto 2016 Introductory workshop on Combinatorial Algebraic Geometry, Field Institute, Toronto – Canada.
- Agosto 2016 Visitin at la McMaster University ( prof. A. Van Tuyl)
- Settembre 2016 Invited speaker/organizer Workshop in honor of Alfio Ragusa's 70<sup>th</sup> birthday 21-23 Sett, 2016

### 2015

- Febbraio 2015 - Mathematisches Forschungsinstitut Oberwolfach - Organizer Mini-Workshop: Ideals of Linear Subspaces, Their Symbolic Powers and Waring Problems in collaboration with E. Carlini, C. Bocci, B. Harbourne
- Talk: "Symbolic powers versus regular powers of ideals of points in  $P^1 \times P^1$ " based on joint papers with B. Harbourne and A. Van Tuyl
- October 2015 – Second referee PHD thesis "Kahler Differential Algebras for 0-dimensional Schemes and Applications" Mrs Tran Nguyen Khanh Linh  
Erstgutachter: Prof. Dr. Martin Kreuzer - Zweitgutachter: Prof. Dr. Elena Guardo -Mundliche Prufer: Prof. Dr. Tobias Kaiser, Prof. Dr. Brigitte Forster-Heinlein Der Fakultat fur Informatik und Mathematik der Universit at Passau (Germany) –
- November 2015 – proff. T. Szemberg e J. Szpond invited at Dipartimento di Matematica e Informatica di Catania.
- December 2015 – Prof. E. Carlini invited at Dipartimento di Matematica e Informatica di Catania.

## Publications

<https://arxiv.org/search/?searchtype=author&query=Guardo%2C+E>

<https://www.scopus.com/authid/detail.uri?authorId=6507958419>

1. Ballico E., Guardo E. Finite 0-dimensional multiprojective schemes and their ideals. JOURNAL OF ALGEBRA AND ITS APPLICATIONS, ISSN: 0219-4988, doi: 10.1142/S0219498823501864 (2022)
2. Carlini E., Catalisano M. V., Favacchio G, Guardo E., “Rational normal curves and Hadamard products” Mediterranean Journal of Mathematics, ISSN: 1660-5446, doi: 10.1007/s00009-022-02050-1 (2022)
3. Favacchio G., Guardo E., Harbourne B., Migliore J., *Expecting the unexpected: quantifying the persistence of unexpected hypersurfaces* Adv. Math 2021, 388,107857
4. Bujtás Cs., Gionfriddo M., Guardo E., Milazzo L., Milici S., Tuza Sz., *Complex uniformly resolvable decompositions of  $K_v$* , (2021) Ars Math. Contemp. ISSN 1855-3966 (printed edn.), ISSN 1855-3974 (electronic edn.) <https://doi.org/10.26493/1855-3974.2288.a20> (Also available at <http://amc-journal.eu>)
5. Ballico E., Favacchio G., Guardo E., Milazzo L., Thomas A.C., *Steiner configurations ideals: Containment and colouring*, Mathematics, Open Access Volume 9, Issue 3, Pages 1 - 15 January 2021 Article number 210
6. Ballico E., Favacchio G., Guardo E., Milazzo L. *Steiner Systems and configurations of points* Des. Codes Cryptogr, Open Access Volume 89, Issue 2, Pages 199 – 219 February 2021
7. Guardo E., Kreuzer M., Tran L., Le Ngoc L. *Kaehler Differentials for Fat Point Schemes  $\mathbb{P}^1 \times \mathbb{P}^1$* . J. Commut. Alg. 13(2), pp. 179-207 (2021)
8. Gionfriddo M., Guardo E. *A short proof of Erdos-Straus Conjecture for every  $n = 13 \pmod{24}$*  J. Interdisc. Math 24(8), pp 2307-2312 (2021).
9. Cooper S., Fatabbi G., Guardo E., Lorenzini A., Migliore J., Nagel U., Seceleanu A., Szpond J., Van Tuyl A. *Symbolic powers of codimension two Cohen-Macaulay ideals* Comm. Algebra, Vol 11(1), 1 Nov 2020, pp 4663- 4680
10. Catalisano M. V., Guardo E., Shin Y.S. *The Waldschmidt constant of special  $k$ -configuration*, J. of Pure and Applied Algebra (2020), Vol. 224(10), 106341
11. Carlini E., Catalisano M. V., Guardo E., Van Tuyl A., *Hilbert functions of schemes of double and reduced points*, J. Pure Appl. Algebra, (2020), Vol. 224(6), 106187
12. Cooper S.M., Guardo E. *Fat points, partial intersections and Hamming distance*. J. Algebra Appl., (2020), 19(4), 2050071 DOI:10.1142/S0219498820500711
13. Carlini E., Catalisano M.V., Guardo E., Van Tuyl A. *Hadamard star configurations*, Rocky Mountain J. Math (2019) Vol 49(2), pp 419-432
14. Favacchio G., Guardo E., *On the Betti numbers of three fat points in  $\mathbb{P}^1 \times \mathbb{P}^1$* , J. Korean Math. Soc., 56 (2019), No. 3, pp. 751–766, doi.org/10.4134/JKMS.j180385



15. Favacchio G., Guardo E., Picone B. *Special arrangements of lines: Codimension 2 ACM varieties in  $\mathbb{P}^1 \times \mathbb{P}^1 \times \mathbb{P}^1$* . J. Algebra Appl., ISSN: 0219-4988, Vol 18, Issue 4, 1 April 2019, Article number 1950073, doi: 10.1142/S0219498819500737
16. Ballico, E, Bernardi, A, Chiantini, L, Guardo, E (2018). *Bounds on tensor rank*. Ann. Mat. Pura Appl., Vol 197, Issue 6, pp 1761—1785, doi: 10.1007/s10231-018-0748-6 December 2018, ISSN: 0373-3114, doi: 10.1007/s10231-018-0748-6
17. Favacchio G., Guardo E., Migliore J. (2018), *On the arithmetically Cohen-Macaulay property for sets of points in multiprojective spaces*. Proc. Amer. Math. Soc. (2018), vol. 146, p. 2811-2825, ISSN: 0002-9939, doi: 10.1090/proc/13981
18. Guardo E., Tran L., Le Ngoc L. *A Presentation of the Kähler Differential Module for a Fat Point Scheme in  $\mathbb{P}^{n_1} \times \dots \times \mathbb{P}^{n_k}$*  ITM Web Conf. Vol 20, 2018 International Conference on Mathematics (ICM 2018) Recent Advances in Algebra, Numerical Analysis, Applied Analysis and Statistics, doi.org/10.1051/itmconf/20182001007
19. Bujtás Cs, Gionfriddo M, Guardo E, Milazzo L, Tuza S, Voloshin V (2017). *Extending bicolorings of Steiner triple system of order  $2^h-1$*  – Taiwanese J. Math. Volume 21, Number 6 (December, 2017), 1265-1276.
20. Favacchio G., Guardo E. (2016). *Minimal free resolution of fat almost complete intersections in  $\mathbb{P}^1 \times \mathbb{P}^1$* . Canad. J. Math, ISSN: 0008-414X, online Nov 2, 2016 doi: <http://dx.doi.org/10.4153/CJM-2016-040-4>
21. Bocci C, Cooper S, Guardo E, Harbourne B., Janssen M, Nagel U, Seceleanu A, Van Tuyl A, Vu T (2016). *The Waldschmidt constant for squarefree monomial ideals*. J. Algebraic Combin., vol. 44, Issue 4, ISSN: 0925-9899, doi: 10.1007/s10801-016-0693-7
22. Guardo E, Van Tuyl A (2015). *Arithmetically Cohen-Macaulay Sets of Points in  $\mathbb{P}^1 \times \mathbb{P}^1$* . SpringerBriefs Math., p. 1-134, MONOGRAFIA Springer, ISBN: 978-3-319-24164-7, ISSN: 2191-8198, doi: 10.1007/978-3-319-24166-1
23. Bocci C., Carlini E., Guardo E., Harbourne B. (2015). *Mini-Workshop: Ideals of Linear Subspaces, Their Symbolic Powers and Waring Problems*. Oberwolfach Rep., vol. 12, p. 489-532, ISSN: 1660-8933, doi: 10.4171/OWR/2015/9
24. Guardo E., Van Tuyl A., “*On the Hilbert Function of sets of points in  $\mathbb{P}^1 \times \mathbb{P}^1 \times \mathbb{P}^1$* ” Math. Proc. Cambridge Philos. Soc. Vol. 159 , Issue 1,( July 2015) pp 115-123, DOI: <http://dx.doi.org/10.1017/S0305004115000249>, Published online: 03 May 2015
25. Carlini E., Guardo E., Van Tuyl A., “*Plane curves containing a star configuration*” J. Pure Appl. Algebra Vol. 219, Issue 8 (August 2015) pp 3089-3700, doi:10.1016/j.jpaa.2014.12.008

26. Carlini E., Guardo E., Van Tuyl A., “*Star configurations on generic hypersurfaces.*” J. Algebra 407 Pubblicato on line il 25 Marzo 2014, pp 1–20, <http://dx.doi.org/10.1016/j.jalgebra.2014.02.013>
27. Gionfriddo M., Guardo E., Milazzo L., Voloshin V., “*Feasible sets of small bicolored STSs.*” Australas. J. of Combin., Volume 59 (1), Pubblicato on line nel Marzo 2014, Pages 107–119, (2014)
28. Gionfriddo M., Guardo E., Milazzo L., – “*Extending bicolorings for Steiner triple systems.*” Appl. Anal. Discrete Math. 7 (2013), 225–234. doi:10.2298/AADM130827019G
29. Guardo E., Harbourne B., Van Tuyl A., -“*Asymptotic resurgences for ideals of positive dimensional subschemes of projective space*”. Adv. Math., Vol 246 (2013) 114–127, <http://dx.doi.org/10.1016/j.aim.2013.05.027>.
30. Guardo E., B. Harbourne, A. Van Tuyl, - “*Fat lines in  $P^3$ : regular versus symbolic powers*” Pubblicato on line 17 Giugno 2013 , J. Algebra, Vol.390, 15 September 2013, pp 221—230, <http://dx.doi.org/10.1016/j.jalgebra.2013.05.028>.
31. Guardo E., B. Harbourne, A. Van Tuyl – “*Symbolic powers versus regular powers of ideals of general points in  $P^l \times P^l$* ”. Canad. J. Math. Vol. 65 (4), 2013 pp. 823–842 (pubblicato on line 13 Novembre 2012) <http://dx.doi.org/10.4153/CJM-2012-045-3>.
32. Guardo E., A. Van Tuyl – “*Classifying ACM sets of points in  $P^l \times P^l$  via separators*”. Arch. Math., vol 99, Issue 1, pp 33—36 (2012). DOI: 10.1007/s00013-012-0404-0.
33. Guardo E., A. Van Tuyl – “*Separators of Arithmetically Cohen-Macaulay fat points in  $P^l \times P^l$* ”. J. Commut. Algebra Vol. 4, N 2, Summer 2012, pp 255-268. DOI:10.1216/JCA-2012-4-2-255
34. Guardo E., A. Van Tuyl –“ *Separators of fat points in  $P^n \times P^m$* ”. J. Pure Appl. Algebra, 215, 1990-1998 (2011). Pubblicato on line 4 December, 2010, doi:10.1016/j.jpaa.2010.11.009
35. Guardo E., L. Marino, A. Van Tuyl – “*Separators of fat points in  $P^n$* ”. – J. Algebra, Pubblicato on line 17 Luglio 2010, Volume 324, Issue 7, 1 October 2010, Pages 1492-1512 doi:10.1016/j.jalgebra.2010.07.008.
36. Guardo E., A. Van Tuyl – “*Separators of points in multiprojective space*”. Manuscripta Math. 126 (2008), no. 1.99-113 DOI: 10.1007/s00229-008-0165-z
37. Guardo E., A. Van Tuyl: -- “*ACM sets of points in Multiprojective Spaces*”. Collect. Math. 59 (2008), no. 2, 191–213. (2008) DOI: 10.1007/BF03191367

38. Guardo E., B. Harbourne – “*Configuration types and cubic surfaces*”. J. Algebra 320 (2008) 3519—3533, doi: 10.1016/j.jalgebra.2008.05.032.
39. Guardo E., Harbourne B., “*Resolution of ideals of six points in  $P^2$* ”. J. Algebra 318 (2007), no. 2, 619—640, doi: 10.1016/j.jalgebra.2007.09.018.
40. Guardo E., Van Tuyl A., “*The minimal resolution of double points in  $P^1 \times P^1$  with ACM support*”. J. Pure Appl. Algebra 211 (2007), no. 3, 784—800, doi: 10.1016/j.jpaa.2007.04.005.
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