

## ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

selezione pubblica per n.1 posto di Ricercatore a tempo determinato in tenure track (RTT)

per il settore concorsuale 01/A2 - Geometria e Algebra \_\_\_\_\_ ,

settore scientifico-disciplinare MAT/02 - Algebra \_\_\_\_\_ ,

presso il Dipartimento di Matematica "Federigo Enriques" \_\_\_\_\_ ,

(avviso bando pubblicato sulla G.U. n. \_97\_ del \_22/12/2023\_) Codice concorso 5468\_

## Ilaria Castellano CURRICULUM VITAE

### INFORMAZIONI PERSONALI

COGNOME	CASTELLANO
NOME	ILARIA
DATA DI NASCITA	14/01/1988

### INTERESSI DI RICERCA

Il mio principale interesse di ricerca è lo studio dei gruppi localmente compatti e totalmente sconnessi, detti gruppi t.d.l.c.. In particolare la costruzione di teorie omologiche e geometriche per questa classe di gruppi topologici motivate da analogie con il caso dei gruppi astratti. Infatti, io sono una dei fondatori della teoria di coomologia discreta razionale per i gruppi t.d.l.c..

I miei interessi di ricerca includono anche i gruppi pro-p e la teoria dell'entropia topologica.

### TITOLI

#### TITOLO DI STUDIO E DOTTORATO DI RICERCA

(21/05/2015) Dottorato di Ricerca in **Mathematica**, Università degli Studi di Bari (IT).

Advisor: Prof. Thomas Weigel, Università degli Studi di Milano-Bicocca (IT).

Thesis: *Stallings' decomposition theorem for totally disconnected and locally compact groups*.

(13/10/2011) **MSc in Mathematics** in Pure Mathematics, 110/110 Summa Cum Laude, Università degli Studi di Bari, IT. Thesis: *Groebner basis of endomorphisms-invariant ideals: non-commutative and difference polynomials*. Advisor: Prof. R. La Scala, Università degli Studi di Bari, IT.

(08/10/2009) **BSc in Mathematics**, 110/110 Summa Cum Laude, Università degli Studi di Bari, IT. Thesis: *An introduction to commutative and non-commutative Gröbner basis*. Advisor: Prof. R. La Scala, Università degli Studi di Bari, IT.

#### CONTRATTI DI RICERCA, ASSEGNI DI RICERCA O EQUIVALENTI

Oct 2022 - Sep 2024 Wissenschaftlicher Mitarbeiter (Research assistant), Universität Bielefeld, DE.  
(current position)

Jun 2019 - Sep 2022 Assegnista di Ricerca (Research fellow), Università degli Studi di Milano-Bicocca, IT.

Dec 2018 - May 2019 Assegnista di Ricerca (Research fellow), Università degli Studi di Udine, IT.

Oct 2016 - Sep 2018 Postdoctoral fellow, University of Southampton, UK.

Oct 2015 - Sep 2016 Assegnista di Ricerca (Research fellow), Università degli Studi di Udine, IT.

## CONSEGUIMENTO DI PREMI E RICONOSCIMENTI NAZIONALI E INTERNAZIONALI PER ATTIVITÀ DI RICERCA

**2023-2034** Professore di II fascia (Associate Professor-Abilitation), ASN, MIUR, Algebra/Geometry, Italy.

**2022** Premio “Giovani Talenti”, University of Milano-Bicocca, IT. Award: 2000 euro  
<https://www.unimib.it/news/premio-giovani-talenti-ecco-vincitori-delledizione-2022>

**2022-2027** Abilitazione a Maître de conférences #22225373669, Sec. 25 - Math, France.

## GRANTS - BORSE - PROGETTI FINANZIATI

Year	Body	Grant value	Grant	Joint with
2023	Clay Mathematics Institute	£2.000	Clay Lecturer at the Conference THGT 2024, Bielefeld Universität	D. Kielak (Oxford) S. Witzel (Giessen)
2023	DFG-Research German Foundation	€15.000	Organization of the conference THGT 2024, Bielefeld Universität	D. Kielak (Oxford, UK) S. Witzel (Giessen, DE)
2023	CRC “Integral Structures in Geometry and Representation Theory” (DE)	€18.000	Organization of the conference THGT 2024, Bielefeld Universität	D. Kielak (Oxford, UK) S. Witzel (Giessen, DE)
2022	MFO Oberwolfach Research Institute for Mathematics	1-week at MFO for 16 participants	MFO Mini-Workshop “Homological properties for TDLC-groups”	N. Mazza (Lancaster), B. Nucinkis (Royal Holloway), R. Sauer (Karlsruhe)
2021	Università di Milano Bicocca	€2.000	Premio “Giovani Talenti” 2022	
2021	Istituto Nazionale di Alta Matematica	€2.000	Organization of the conference GABY 2022, Milano Bicocca	
2021	Rettorato della Università di Milano Bicocca	€2.000	Organization of the conference GABY 2022, Milano Bicocca	
2021	Heilbronn Institute for Mathematical Research	£2.000	Heilbronn Small Grants Scheme for research project	N. Mazza (Lancaster, UK) B. Nucinkis (London, UK)
2020	London Mathematical Society	£1.340	LMS “Visits to UK” grant	A. Thillaisundaram (Lincoln, UK)
2020	ICTP - INdAM	€1.300	“Research in Pairs” grant	P. Zalesskii (Brasilia, BR)
2019	Istituto Nazionale di Alta Matematica	€2.000	Organization of the conference GABY 2020, Milano Bicocca	
2015	Istituto Nazionale di Alta Matematica	€1.000	Organization Xmaths Workshop 2015, Università di Bari	S. Di Martino, F.D. Kunden, G. Stancaronè
2013	Istituto Nazionale di Alta Matematica	~ €1.900	visiting PhD at University of Newcastle, AU	
2011	Regione Puglia	~€40.000	3-year Ph.D. fellowship	

## ATTIVITÀ DIDATTICA A LIVELLO UNIVERSITARIO IN ITALIA O ALL'ESTERO

### *Titolare di corsi (lecturer):*

**Oct 23/Feb 24** (60 hours) Optimization, MSc Quantitative Economics, Bielefeld University (DE)

**Apr 23/Jul 23** (60 hours) Optimization & Dynamics, MSc Quantitative Economics, Bielefeld University (DE)

**Oct 22/Feb 23** (60 hours) Optimization, MSc Quantitative Economics, Bielefeld University (DE)

**2021** (28 hours) Ph.D. Course, University of Milano-Bicocca and University of Pavia, IT.  
Title: Cohomology and Geometry of totally disconnected locally compact groups.

### *Mini-Corsi (lecturer):*

**Sep 2023** "An introduction to the rational discrete cohomology for TDLC-groups" (1 week)  
Summer school of the focus programme "Actions of totally disconnected locally compact groups on discrete structures", Münster, DE.

**Sep 2020** "An introduction to totally disconnected locally compact groups", online (1 week)  
LMS Autumn Algebra School, International Center for Mathematical Sciences, UK.  
Le lezioni sono disponibili su LMS youtube channel: <https://www.youtube.com/watch?v=FtT4PfigpFk>

**2019** "The Lamplighter Group", Msc (1 day)  
University of Udine, UK (on the invitation of Prof. A. Giordano Bruno)

**Mar 2016** "Rational discrete cohomology for totally disconnected locally compact groups" (2 weeks)  
École polytechnique, Paris, FR (on the invitation of Prof. B. Remy)

### *Esercitazioni:*

**2021/22** (14 hours) Logic and Algebra (Computer science), Polytechnic University of Milan, IT.

**2021/22** (30 hours) Linear Algebra and Geometry (Engineering), Polytechnic University of Milan, IT.

**2020/21** (30 hours) Mathematics (Sociology), University of Milano-Bicocca, IT.

**2020/21** (30 hours) Linear Algebra and Geometry (Engineering), Polytechnic University of Milan, IT.

**2019/20** (24 hours) Linear Algebra and Geometry (Mathematics), University of Milano-Bicocca, IT.

**2019/20** (30 hours) Mathematics (Sociology), University of Milano-Bicocca, IT.

**2019** Crash Course (2 weeks) Mathematics for Sociology, University of Milano-Bicocca, IT.

**2015** Geometry II (Mathematics), University of Bari, IT.

**2013** Calculus (Engineering), University of Bari, IT.

### *Tutorials & Special learning difficulties:*

**2020/21** (20 hours) 1-1 tutorial for a student with special learning difficulties at the University of Milano-Bicocca, IT.

**2019/20** (20 hours) 1-1 tutorial for a student with special learning difficulties at the University of Milano-Bicocca, IT.

### *Reading group (organization & participation)*

**2023** "Machine learning & Mathematics", University of Bielefeld (senior participant)

## SUPERVISIONE DI TESI DI LAUREA E DOTTORATO

Data la natura temporanea dei miei contratti di ricerca non ho mai potuto avere uno studente di dottorato ufficiale. Nonostante ciò, rivesto un ruolo importante nella supervisione della dottoranda Bianca Marchionna (Bielefeld & Milano Bicocca) fin dal 2022. Questo include anche la pubblicazione di lavori in collaborazione. Inoltre dal 2023 ho iniziato a collaborare con la dottoranda Sofiya Yatsyna (Royal Holloway University of London), che verrà in visita a Bielefeld per qualche mese.

**2021** Co-Supervisor of master thesis, Università degli Studi di Milano Bicocca, IT.

Student: Bianca MARCHIONNA

Thesis: Stallings-Swan theorem for totally disconnected locally compact groups.

Jointly with Prof. T. Weigel

**2016** Co-Supervisor of master thesis, Università degli Studi di Udine, IT.

Student: Luisa GALLOVICH

Thesis: Dualità ed Entropia per spazi vettoriali localmente linearmente compatti.

Jointly with Prof. A. Giordano Bruno

## PARTECIPAZIONE A GRUPPI DI RICERCA e PROGETTI

**2023/24** Member of Pablo Spiga's Research group - PRIN 2022, IT. <https://prin.mur.gov.it/>

**2023/24** Investigator SFB-TRR 358 "Integral Structures in Geometry and Representation Theory", DE.  
<https://trr358.math.uni-bielefeld.de/People>

**2022** Research project supported by Heilbronn Institute for mathematical research, "Small Grants Scheme" <https://heilbronn.ac.uk/wp-content/uploads/2021/06/Small-Grants-Call-Advert.pdf>

Collaborators: N. Mazza (University of Lancaster), B. Nucinkis (Royal Holloway University of London), UK.  
Title: Mackey functors for topological groups.

**2020/22** Research project supported by "Research in Pairs" grant by ICTP - IndAM  
<https://tinyurl.com/y277e68o> Collaborator: P. Zaleskii, University of Brasilia, BR.

**2016/18** Postdoc supported by *Soluble Groups and Cohomology* - EPSRC Grant N007328/1. P.I. Peter Kropholler, University of Southampton, UK.

**2015/16** Postdoc supported by *Project GADYGR - SIR 2014*, MIUR - Number RBSI14V2LI cup G22I15000160008. P.I. Anna Giordano Bruno, University of Udine, IT.

## ORGANIZZAZIONE CONVEGNI e SEMINARI

### Conferences & Workshops

**Jun 2024** Groups & Algebras in Bicocca for Young Algebraists, University of Milan-Bicocca, IT.  
Webpage: <http://staff.matapp.unimib.it/~gaby/>

**Mar 2024** Topological and Homological methods in Group Theory 2024, Bielefeld University, DE.  
Webpage: <https://www.math.uni-bielefeld.de/groupsgeometry/thgt24/>

**Nov 2023** MFO Mini-Workshop, Homological aspects for TDLC-groups, Oberwolfach, DE.  
Webpage: [https://www.mfo.de/occasion/2348b/www\\_view](https://www.mfo.de/occasion/2348b/www_view)

**Sep 2023** Thompson's groups and their relatives, Bielefeld University, DE.  
Webpage: <https://trr358.math.uni-bielefeld.de/workshops/view/146>

<b>Mar 2023</b>	Asymptotic Algebra 2023, FernUniversität in Hagen, DE. Webpage: <a href="https://www.math.uni-bielefeld.de/~asymalg2023/">https://www.math.uni-bielefeld.de/~asymalg2023/</a>
<b>Sep 2022</b>	New trends around profinite groups 2022, Villa Toeplitz, Varese, IT. Webpage: <a href="https://www.rism.it/events/around-profinite-groups">https://www.rism.it/events/around-profinite-groups</a>
<b>Jun 2022</b>	Groups & Algebras in Bicocca for Young Algebraists, University of Milan-Bicocca, IT. Webpage: <a href="http://staff.matapp.unimib.it/~gaby/">http://staff.matapp.unimib.it/~gaby/</a>
<b>Jul 2020</b>	Groups with Geometrical and Topological Flavours, online conference. Webpage: <a href="https://sites.google.com/view/gwgtf2020">https://sites.google.com/view/gwgtf2020</a>
<b>Jul 2018</b>	Dynamical Methods in Algebra, Geometry and Topology, University of Udine, IT. Webpage: <a href="https://dagt.uniud.it">https://dagt.uniud.it</a>
<b>Jul 2017</b>	Homological algebra and Topological groups, University of Southampton, UK. Webpage: <a href="https://sites.google.com/site/haatg2017/">https://sites.google.com/site/haatg2017/</a>
<b>2012/13/14/15</b>	Four Editions of the "Xmaths Workshop 2012", University of Bari, IT. Webpage: <a href="http://www.xmathsworkshop.weebly.com">http://www.xmathsworkshop.weebly.com</a>
<i>Serie di seminari di ricerca (a scadenza settimanale)</i>	
<b>2023/today</b>	"Oberseminar", Bielefeld Universität, DE. Webpage: <a href="https://www.math.uni-bielefeld.de/groupsgeometry/seminar.php?ID=126">https://www.math.uni-bielefeld.de/groupsgeometry/seminar.php?ID=126</a>
<b>2019/2022</b>	"Al@Bicocca seminars", University of Milan-Bicocca, IT. Webpage: <a href="https://sites.google.com/unimib.it/algebra-in-bicocca-english/algebra-seminar">https://sites.google.com/unimib.it/algebra-in-bicocca-english/algebra-seminar</a>
<b>2017/18</b>	"Lunchtime seminars", University of Southampton, UK. Webpage: <a href="http://www.southampton.ac.uk/maths/research/seminars/pure/lunchtime_seminars.page">www.southampton.ac.uk/maths/research/seminars/pure/lunchtime_seminars.page</a>

#### DOCUMENTATA ATTIVITÀ DI FORMAZIONE O DI RICERCA PRESSO ISTITUTI ITALIANI O STRANIERI;

<b>Oct-Dec 2013</b>	Visiting Ph.D. student at the University of Newcastle (AU) invited by Prof. G. Willis.
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#### VISITE DI RICERCA e COLLABORAZIONI

<b>Nov 2023</b>	University of Bologna, IT, invited by Prof. M. Lupini (1 week)
<b>Feb 2022</b>	Karlsruhe Institute of Technology, DE, invited by Prof. R. Sauer (1 week)
<b>Feb 2022</b>	University of Lancaster, UK, invited by Prof. N. Mazza (1 week)
<b>Nov 2021</b>	Research in pair with Prof. P. Zalesski, Brasilia University, BR (2 weeks) Hosting University: Universidad Autonoma de Madrid, ES.
<b>Jun 2019</b>	University of Udine, IT, invited by Prof. A. Giordano Bruno (1 week)
<b>Feb 2019</b>	University of Milan-Bicocca, IT, invited by Prof. Th. Weigel (1 week)
<b>Oct 2018</b>	University of Milan-Bicocca, IT, invited by Prof. Th. Weigel (1 week)
<b>Sep 2018</b>	University of Udine, IT, invited by Prof. A. Giordano Bruno (1 week)
<b>Feb 2018</b>	University of Bilbao, ES, invited by Dr. G. Corob Cook (2 weeks)

**May 2017** University of Milan-Bicocca, IT, invited by Prof. Th. Weigel (1 week)

**Mar-Jul 2017** Visitor at Isaac Newton Institute, Cambridge University, UK (on the invitation of Peter Kropholler)

**Jan 2017** Karlsruhe Institute of Technology, DE, invited by Prof. R. Sauer (1 week)

**Dec 2016** University of Udine, IT, invited by Prof. A. Giordano Bruno (1 week)

**Mar 2016** École polytechnique - Université Paris-Saclay (FR), invited by Prof. B. Remy (2 weeks)

## ATTIVITÀ DI RELATORE

### *Seminari su invito:*

**Apr 2024 (invitation)** Seminar at Universität Münster, DE.

**Feb 2024 (invitation)** Seminar at "Cambridge's GGT seminar", Cambridge University, UK.  
<https://talks.cam.ac.uk/show/index/61178>

**Nov 2023** Seminar at University of Bologna, IT.  
<https://site.unibo.it/seminar-algebra-geometry/it/elenco-seminari>

**Sep 2023** "Totally disconnected locally compact groups from a geometric prospective", Münster, DE.  
<https://www.uni-muenster.de/MathematicsMuenster/events/2023/groups-workshop1.shtml>

**Jul 2023** Seminar at "Bielefeld-Münster-Meeting", Universität Bielefeld, DE.  
<https://trr358.math.uni-bielefeld.de/workshops/view/161>

**May 2023** "Groups in Galway", University of Galway, UK.  
<https://angelacarnevale.github.io/gig23/>

**Mar 2023** (Online) "Workshop on combinatorial theory of profinite groups and applications", University of Brasilia, BR. <https://mat.unb.br/profinitigroupspz60/>

**Nov 2022** "Discrete and locally compact groups: geometry, analysis", Lyon, FR.  
<https://groups-in-lyon.sciencesconf.org>

**Oct 2022** "Norddeutsches Gruppentheorie-Kolloquium 2022", Dusseldorf, DE.  
<https://www.math.uni-duesseldorf.de/~internet/NDGK2022/>

**Feb 2022** "Workshop on finiteness properties", KIT - Karlsruhe, DE.  
<https://www.groups-and-spaces.kit.edu/592.php>

**Feb 2022** (Online) Lunchtime seminars, University of Southampton, UK.  
[https://www.southampton.ac.uk/maths/research/seminars/pure/lunchtime\\_seminars.page](https://www.southampton.ac.uk/maths/research/seminars/pure/lunchtime_seminars.page)

**Nov 2021** Seminar at the University of Florence, IT.  
<https://sites.google.com/unifi.it/algebra-al-dini/algebra-al-dini/seminario-di-algebra>

**Oct 2021** (Online) Oberseminar Groups and Geometry, Bielefeld University, DE.  
<https://www.math.uni-bielefeld.de/groupsgeometry/>

**Oct 2021** (Online) Seminar at the University of the Basque Country (UPV/EHU), ES.  
<https://sites.google.com/site/bilbaoalgebraseminar/>

**Sep 2021** (Online) "Burnside and Mackey functors revisited", University of Lille, FR.  
<https://www.lancaster.ac.uk/maths/fcg/ecr-meeting/>

**Sep 2021** "New Trends Around Profinite Groups", CIRM, IT.

<http://reh.math.uni-duesseldorf.de/~internet/Levico2020/>

**Sep 2021** (Online) "Algebra, Topology and its interactions", University of Udine, IT.

<https://algebratopology.uniud.it/>

**Aug 2021** (Online) "Totally Disconnected Locally Compact Groups via Group Actions", BIRS, CA.

<http://www.birs.ca/events/2021/5-day-workshops/21w5151/videos/watch/202108171007-Castellano.html>

**Jun 2021** (Online) "Symmetry in Newcastle seminar", University of Newcastle, AU. Youtube channel:

<https://youtu.be/wRs2PkQs3RU>

**Apr 2021** (Online) Seminar at FCG meeting, University of Lincoln, UK. (online)

<https://www.lancaster.ac.uk/mathsfcg/>

**Dec 2020** (Online) "XMaths Workshop", University of Bari, IT.

<https://www.dm.uniba.it/it/ricerca/convegni/2020/20201221-xmaths-workshop-2020>

**Sep 2020** (Online) "LMS Autumn Algebra School", ICMS, UK.

<https://www.icms.org.uk/events/event/?id=1073>

**Sep 2019** "YARC 2019", University of Naples "Federico II", IT.

<http://www.advgrouptheory.com/yrac2019/program.html>

**Apr 2019** Seminar at FCG meeting, University of Lancaster, UK.

<https://www.lancaster.ac.uk/mathsfcg/april-2019/>

**Feb 2019** Seminar at the University of Milan-Bicocca, IT.

**Dec 2018** Seminar at the University of Milan-Bicocca, IT.

**Sep 2018** Seminar at the University of Udine, IT.

**Apr 2018** Pure colloquium, University of Southampton, UK.

<https://www.maths.soton.ac.uk/pure-colloq/>

**May 2017** Seminar at the University of Milan-Bicocca, IT.

**Mar 2017** Seminar at the University of Copenhagen, DK.

**Feb 2017** Seminar at the Royal-Holloway University of London, UK.

**Dec 2016** Seminar at the University of Udine, IT.

**Nov 2016** "Permutation groups", BIRS, CA.

<https://www.birs.ca/events/2016/5-day-workshops/16w5087>

**Oct 2013** Seminar at the University of Newcastle, AU.

#### *Seminari a contributo:*

**Jul 2023** Teoria dei Gruppi in Paestum, IT.

**Jun 2022** Topological and Homological methods in group theory, Bielefeld University, DE.

**Oct 2019** GTG 2019, Cetara, IT.

**Sep 2019** (Lightning talk) Of coarse! Quasi-isometries and groups: rigidity and classification, Ventotene, IT.

**Jun 2019** AGTA 2019, Università del Salento, IT.

**Jul 2018** Geometric Group Theory in Campinas, University of Campinas, BR.

**Jul 2016** Toposym 2016, Prague, CZ.

**Jun 2015** AGTA-Advances in Group theory and applications 2015, Porto Cesareo, IT.

**Nov 2015** Groups and Topological groups 2015, Salerno, IT.

Mar 2015 Spring School on Algebraic K-theory of Topological Algebras, Universität Regensburg, DE.  
Dec 2013 Xmaths Workshop, University of Bari, IT.  
Nov 2013 Victorian Algebra Conference 2013, University of Melbourne, AU.  
Dec 2012 Xmaths Workshop, University of Bari, IT.

## MATH OUTREACH & DIVERSITY IN HIGH EDUCATION

**Jun 2022** Organiser of the "Equity-Diversity-Inclusion" session

Conference: GABY 2022, University of Milano-Bicocca, IT.

Articolo su MaddMaths: "A Milano Bicocca EDI arricchisce GABY"

<https://maddmaths.simai.eu/comunicare/pari-opportunita/edi-arricchisce-gaby/>

**Nov 2021** Outreach talk at "La Notte bianca della Scienza e della Ricerca", Liceo Scientifico Battiglini, IT.

<https://www.battaglini.edu.it/index.php/eventi/news/183-notte-bianca-della-scienza-e-della-ricerca>

**Apr 2021** Career&Outreach talk at "Open day & Career expo", University of Milano-Bicocca, IT.

**Mar 2019** Member of a workshop team at "Women in Non-Commutative Algebra and Representation Theory" Hosting University: University of Leeds, UK.

<https://women-in-nalg-repthy.org/conferences/winart2-workshop-may-2019/>

## ATTIVITÀ DI REVISIONE e ESPERIENZE EDITORIALI

- Guest editor of the volume in *Advances in Group Theory and Applications* dedicated to the conference GABY 2022 (Groups & Algebra in Bicocca for Young algebraists).
- Referee for the journals: *Journal of Algebra*, *Journal of Group Theory*, *Topological Algebra and its applications*, *Analysis and Mathematical Physics*, *Applied General Topology*.
- Reviewer for *Zentralblatt Math* and for *Mathematical Reviews of AMS*.

## ALTRO

**2020/22** Rappresentante degli assegnisti di ricerca del Dipartimento di Matematica e Applicazioni, Università di Milano Bicocca.

## PRODUZIONE SCIENTIFICA

### PUBBLICAZIONI SCIENTIFICHE

*Articoli in Rivista:*

14 Castellano, I., Zalesskii, P. (2023). *A pro-p version of Sela's accessibility and Poincarè duality pro-p group*. Groups, Geometry and Dynamics. <https://arxiv.org/pdf/2206.01569.pdf>

13 Castellano, I., Giordano Bruno, A., Zava, N. (2023). *Weakly weighted generalised quasi-metric spaces and semilattices*. Theoretical Computer Science, 977, 114129. <https://arxiv.org/pdf/2212.08424.pdf>.

12 Arora, S., Castellano, I., Corob Cook, G., Martinez-Pedroza, E. (2023). *Subgroups, hyperbolicity and cohomological dimension for totally disconnected locally compact groups*. J. of Topology and Analysis, 15(01), 223-249. <https://arxiv.org/abs/1908.07946>



- 11 Castellano, I., Dikranjan, D., Freni, D., Giordano Bruno, A., Toller, D. (2022). *Intrinsic entropy for generalized quasi-metric semilattices*. (2022) J. of Algebra and its Applications, 21(10), 225-244. <https://arxiv.org/abs/2003.00929>
- 10 Castellano, I., Zaleskii, P. (2021). *Subgroups of pro-p PD3 -groups*. Monatsh. Math. 195, no. 3, 391-400. <https://arxiv.org/abs/2005.00423>
- 9 Castellano, I. (2020). *The corank of a flow over the category of linearly compact vector spaces*. J. Pure Appl. Algebra 224, no. 6, 17pp. <https://arxiv.org/abs/1803.04018>
- 8 Castellano, I., Corob Cook, G. (2020). *Finiteness properties of totally disconnected locally compact groups*. J. Algebra 543, 54-97. <https://arxiv.org/abs/1901.08470>
- 7 Castellano, I. (2020). *Topological entropy for locally linearly compact vector spaces and field extensions*. Top. Algebra App. 8, no. 1, 58-66. <https://arxiv.org/abs/1809.02144>
- 6 Castellano, I., Corob Cook, G., Kropholler, P. H. (2020) *A property of the lamplighter group*. Top. Algebra App. 8, no. 1, 1-4. <https://arxiv.org/abs/1909.01094>
- 5 Castellano, I., Giordano Bruno, A. (2019). *Topological entropy for locally linearly compact vector spaces*. Topology Appl. 252, 112-144. <https://arxiv.org/abs/1701.00676>
- 4 Castellano, I. (2018). *Rational discrete first degree cohomology for totally disconnected locally compact groups*. Math. Proc. Cambridge Philos. Soc. 168, no. 2, 361-377. <https://arxiv.org/abs/1506.02310>
- 3 Castellano, I., Weigel, T. (2016) *Rational discrete cohomology for totally disconnected locally compact groups*. J. Algebra 453, 101-159. <https://arxiv.org/abs/1503.02436>

*Capitoli in libri e Proceedings:*

- 2 Castellano, I. (2023). *An Introduction to Totally Disconnected Locally Compact Groups and Their Finiteness Conditions*. Modern Trends in Algebra and Representation Theory, 486, 335. Cambridge University Press.
- 1 Castellano, I., Giordano Bruno, A. (2017). Algebraic entropy in locally linearly compact vector spaces. In: (a cura di): Fontana M. Frisch S. Glaz S. Tartarone F. Zanardo P., Rings, Polynomials, and Modules. p. 103-127, Springer, Cham. <https://arxiv.org/abs/1612.01899>

*Preprints & Work in progress:*

- (iv) Castellano, I., Marchionna, B., Weigel, T. (arxiv preprint). *Stallings-Swan theorem for unimodular totally disconnected locally compact groups*. Available at <https://arxiv.org/abs/2201.10847>
- (iii) Castellano, I., Chinello, G., Weigel, T. (in preparation). *Hattori-Stallings rank, Euler characteristic and zeta-functions for totally disconnected locally compact groups*.
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Data

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