

Curriculum Vitae

Dolors Herbera Espinal

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1 Education Background

- B. Sc. in Mathematics, July 1985 Universitat Autònoma de Barcelona (Spain).
- Ph.D. in Mathematics, January 1992 under supervision of Professor P. Menal at the Universitat Autònoma de Barcelona (Spain). The title of the thesis was **Sobre anells tals que els seus mòduls finitament generats fidels són generadors.**

2 Professional Experience

Since I finished my degree in Mathematics I have been working at the **Universitat Autònoma de Barcelona**. I have been:

- *Ayudante de clases prácticas.* From October 1st 1985 to September 30th 1987.
- *Ayudante de escuela universitaria.* From October 1st 1987 to September 30th 1989.
- *Titular de Escuela Universitaria (interina).* From October 1st 1989 to November 1st 1992.
- *Titular de Escuela Universitaria (numeraria).* From September 2nd 1992 to July 2nd. 1995.
- *Catedrática de Escuela Universitaria (numeraria).* From July 3rd 1995 until December 18th 2015 when I was assimilated to:
- *Titular de Universidad (numeraria).*

Since October 2016 I am the **Coordinator of the PhD Program in Mathematics** of the Universitat Autònoma de Barcelona.

Since 2015 I am member of the Barcelona Graduate School of Mathematics (BGSMath). Since April 2017, I am **member of the Advisory Scientific Committee of the BGSMath.**

3 Languages

I speak and write **Catalan** and **Spanish** as Mother tongues.

In 1988 obtained the English First Certificate from Universidad de Cambridge. Afterwards I spend almost two years as a postdoc in the United States, after that I have a good level of spoken and written **English**.

I followed Italian courses until level 3. After I spent one course in Padova visiting the Università degli studi di Padova (2004–2005). My level of **Italian** is quite good at conversation level (even to discuss mathematics) but not so good at written level.

4 Research activity

From my research activity I have four Sexenios de investigación recognized by the Spanish and by the Catalan authorities. The first for the years 1989-1992-1993-1994-1995-1996, the second for the period 1997 to 2002, from 2003 to 2008 and from 2009 to 2014.

According to the data on Mathematical Reviews (checked March, 2018) I have 394 citations and my h-index is 12. Including the paper signed with the acronym MD Rafael the number of quotations becomes 434 and my h-index is 13.

4.1 Refereed papers

1. D. Herbera and R. Fernández-Alonso; *Finite Lattices of Preradicals over Finite Representation Type Rings*. Int. Electron. J. Algebra **21** (2017), 103–120.
2. P. Aydogdu and D. Herbera; *A family of examples of generalized perfect rings*. Comm. in Algebra **44** (2016) 1171–1180.
3. D. Herbera and J. Sánchez; *The inversion height of the free field is infinite*. Selecta Mathematica **21** (2015) 883–924.
4. D. Herbera and P. Příhoda; *Reconstructing projective modules from its trace ideal*. Journal of Algebra **416** (2014) 25–57.
5. D. Herbera and P. Příhoda; *Infinitely generated projective modules over pullbacks of rings*. Trans. Amer. Math. Soc. **366** (2014), no. 3, 1433–1454.
6. D. Herbera; *Constructions of Modules with a prescribed direct sum decomposition*. International Electronic Journal of Algebra **15** (2014) 218–248.
7. J. Šťovíček, J. Trlifaj and D. Herbera; *Cotilting Modules over Commutative Noetherian rings*. Journal of Pure and Applied Algebra **218** (2014) 1696–1711.
8. Dolors Herbera; *Definable categories and Mittag-Leffler conditions*. In RING THEORY AND ITS APPLICATIONS 137–166 (2014) AMS, Providence (USA).
9. Dolors Herbera and Jan Trlifaj; *Almost free modules and Mittag-Leffler conditions*. Advances in Mathematics **229** (2012) 3436–3467.
10. D. Herbera and L. Angeleri-Hügel; *Auslander-Reiten components over pure-semisimple hereditary rings*. J. of Algebra **331** (2011) 285–303.
11. D. Herbera and P. Příhoda; *Big projective modules over noetherian semilocal rings*. J. Reine und Angew. Math. **648** (2010) 111–148.
12. L. Angeleri-Hügel, D. Herbera and J. Trlifaj; *Baer and Mittag-Leffler modules over Tame Hereditary Algebras*. Mathematische Zeitschrift **265** (2010) 1–19.
13. Dolors Herbera; *Simple modules over small rings*. In PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON RINGS AND THINGS, 189–205 (2009), AMS, Providence (USA).
14. Silvana Bazzoni and Dolors Herbera; *Cotorsion pairs generated by modules of bounded projective dimension*. Israel J. of Math. **174** (2009) 119–160.
15. Cornelius Greither, Dolors Herbera and Jan Trlifaj; *A version of the Baer splitting problem for noetherian rings*; in MODELS, MODULES AND ABELIAN GROUPS, 375–383 (2008) de Gruyter, New York, Berlin.
16. Lidia Angeleri Hügel and Dolors Herbera; *Mittag-Leffler conditions on modules*. Indiana Univ. Math. J. **57** (2008) 2459–2518.
17. Silvana Bazzoni and Dolors Herbera; *One dimensional tilting modules are of finite type*. Algebras and Representation Theory **11** (2008) 43–61.
18. Lidia Angeleri Hügel, Silvana Bazzoni and Dolors Herbera; *A solution to the Baer splitting problem*. Transactions of the American Mathematical Society. **360** (2008) 2409–2421.

4.1 Refereed papers

19. Dolores Herbera and Javier Sánchez; *Computing the inversion height of some embeddings of the free algebra and the free group algebra*. Journal of Algebra **310** (2007) 108–131.
20. P. N. Ánh and Dolores Herbera; *Müller’s question on semiperfect complete Hereditary Noetherian Prime rings*. Proceedings of the Edinburgh Mathematical Society **49** (2006) 567–573.
21. Alberto Facchini and Dolores Herbera; *Local homomorphisms and modules with a semilocal endomorphism ring*. Algebras and Representation Theory **9** (2006) 403–422.
22. L. Angeleri-Hügel, D. Herbera and J. Trlifaj; *Tilting modules and Gorenstein rings*. Forum Math. **18** (2006), no. 2, 211–229.
23. D. Herbera, T. Kepka and P. Nemeč; *Hamiltonian selfdistributive quasigroups*. Journal of Algebra **289** (2005) 70–104.
24. L. Angeleri-Hügel, D. Herbera and J. Trlifaj; *Divisible modules and localization*. Journal of Algebra **294** (2005) 519–551.
25. A. Facchini, D. Herbera and I. Sakhačev; *Flat modules and lifting of finitely generated projective modules*. Pacific Journal of Mathematics **220** (2005) 49–67.
26. A. Facchini and D. Herbera; *Two results on modules whose endomorphism ring is semilocal*. Algebras and Representation Theory **7** (2004) 575–585.
27. W. Dicks, D. Herbera and J. Sánchez; *On a theorem of Ian Hughes about division rings of fractions*. Communications in Algebra **32** (2004) 1127–1149.
28. D. Herbera; *Bezout and Semihereditary Power series rings*. Journal of Algebra **270** (2003) 150–168.
29. A. Facchini, D. Herbera and I. Sakhačev; *Finitely Generated Flat Modules and a Characterization of Semiperfect Rings*. Communications in Algebra **31** (2003) 4195–4214.
30. A. Facchini and D. Herbera; *Modules with only finitely many direct sum decompositions up to isomorphism*. Irish Mathematical Bulletin **50** (2003) 51–69.
31. P. N. Ánh and D. Herbera; *Patching Dualities*. Journal of Algebra and its Applications **1** (2002) 307–325.
32. P. N. Ánh, D. Herbera and C. Menini; *Baer Duality for Commutative Rings*. Forum Mathematicum **14** (2002) 47–63.
33. A. Facchini and D. Herbera; *Projective modules over semilocal rings*. In ALGEBRA AND ITS APPLICATIONS, Contemporary Mathematics **259**, American Mathematical Society 2000, 181–198.
34. A. Facchini and D. Herbera; *K_0 of a semilocal ring*. Journal of Algebra **225** (2000) 47–69.
35. P. N. Ánh, D. Herbera and C. Menini; *Baer and Morita duality*. Journal of Algebra **232** (2000) 462–484.
36. P. N. Ánh, D. Herbera and C. Menini; *$AB-5^*$ for module and ring extensions*. In ABELIAN GROUPS, MODULE THEORY AND TOPOLOGY, Lecture Notes in Pure and Applied Mathematics **201**, Marcel-Dekker, 1998, 59–68.
37. P. N. Ánh, D. Herbera and C. Menini; *$AB-5^*$ and Linear Compactness*. Journal of Algebra **200** (1998) 99–117.

38. F. Cedó and D. Herbera; *The maximum condition on annihilators for polynomial rings*. Proceedings of the American Mathematical Society **126** (1998) 2541–2548.
39. C. Faith and D. Herbera; *Endomorphism rings and tensor products of linearly compact modules*. Communications in Algebra **25** (1997) 1215–1255.
40. D. Herbera and A. Shamsuddin; *On Perfect self-injective rings*. Canadian Mathematical Bulletin **39** (1996) 55–58.
41. A. Facchini, D. Herbera, L. Levy and P. Vamos; *Krull-Schmidt fails for artinian modules*. Proceedings of the American Mathematical Society **123** (1995) 3587–3592.
42. D. Herbera and A. Shamsuddin; *Modules with semilocal endomorphism ring*. Proceedings of the American Mathematical Society **123** (1995) 3593–3600.
43. F. Cedó and D. Herbera; *The Ore condition for polynomial and power series rings*. Communications in Algebra **23** (1995) 5131–5159.
44. D. Herbera and P. Pillay; *Injective classical Quotient rings of polynomial rings are Quasi-Frobenius*. Journal of Pure and Applied Algebra **86** (1993) 51–63.
45. L. Bionda, R. Colpi, A. Giaquinta, E. Gregorio, D. Herbera, F. van Oystaeyen, A. del Rio and M. Saorin; *Separable functors revisited*. Communications in Algebra **18**(5) (1990) 1445–1459.
46. D. Herbera and P. Menal; *On rings whose finitely generated faithful modules are generators*. Journal of Algebra **122** (1989) 425–438.

4.2 Edited books

- Dolors Herbera, Wolfgang Pitsch and Santiago Zarzuela; *Extended Abstracts Spring 2015. Interactions between Representation Theory, Algebraic Topology and Commutative Algebra*. 140 pages (2017) Published by Birkhäuser.
- D. Herbera, W. Pitsch and S. Zarzuela, *Building bridges between Algebra and Topology* To appear in the series "Advanced Courses in Mathematics CRM Barcelona" (2017) Published by Birkhäuser.

4.3 Other publications

- Herbera, Dolors *Sobre anells tals que els seus mòduls finitament generats fidels són generadors*. (Catalan) Ph D. Thesis 1992. Universitat Autònoma de Barcelona.
- Herbera, Dolors *In memoriam Amparo López Villacampa (1944–2013)*. (Catalan) SCM Not. **35** (2013), 9–12.

4.4 PhD Students

I supervised the PhD Thesis of **Javier Sánchez Sardà**: *Localization: On division rings and tilting modules* that was defended on July 18th, 2008 at the UAB. Now Javier is an Associated Professor at the University of Sao Paulo (Brazil). The thesis was awarded with the *Mención Europea de Calidad*

I supervised the PhD Thesis of **Simone Virili**: *Group representations, algebraic dynamics and torsion theories*. It was defended on September 15th, 2014. Now Simone has a Grant Juan de La Cierva given by the Spanish Government go stay at the Universidad de Murcia (Spain). The thesis was awarded with the *Mención Europea de Calidad* it has the *Premi extraordinari de doctorat*. The thesis was also nominated by the Societat Catalana de Matemàtiques for the Prize **Ferran Caselles-RSME- BBVA** on 2017.

I have been the scientific responsible for several short stays of PhD students:

4.5 Master Thesis

- Azam Mozaffarikhah, PhD Student Pure Mathematics, Department of Basic Sciences, Yasouj University (Iran). From March to December 2018.
- Samira Roointan, Isfahan University of Technology, Isfahan (Iran). From April to September 2015.
- Isabel Cárceles, Universidad de Murcia, Murcia (Spain). From September to December 2007.

4.5 Master Thesis

- In 1998 I codirected with Claudia Menini the *Tesi di Laurea* of Marianna Fornasiero entitled *Anelli universal Σ -inverting*. Presented in June 1988 at the Università di Ferrara (Italy).
- I directed the Tesina of Javier Sánchez Sardà entitled *Embedding domains in division rings*. Presented July 2003 at the UAB.

I have to mention that since 2011 our department does not have a master program on Fundamental Mathematics. This makes it practically impossible to advise master thesis for people working in such areas.

4.6 Financed research projects

1. Researcher of the project *ESTRUCTURA Y CLASIFICACION DE ANILLOS, MODULOS Y C*-ALGEBRAS: INTERACCIONES CON DINAMICA, COMBINATORIA Y TOPOLOGIA* MINECO MTM2017-83487-P (2018-2020). Project leader: Pere Ara Bertrán.
2. Researcher of the project *Laboratori d'Interaccions entre Geometria, Àlgebra i Topologia LIGAT* 2017-SGR-1725 (2017–2019). Project leader: Carles Broto.
3. Researcher of the project "ESTRUCTURA Y CLASIFICACION DE ANILLOS, MODULOS Y C*-ALGEBRAS" MINECO MTM2014-53644-P (2015–2017). Project leader: Pere Ara Bertrán.
4. Researcher of the net: *Red temàtica en Àlgebra no conmutativa* since 2005 and that now is *Red de Excelencia en Àlgebra No Conmutativa*. Now the Project leader now is Pedro Guil (Universidad de Murcia).
5. Coorganizer of the *Research Program*: "Interactions between Representation Theory, Algebraic Topology and Commutative Algebra (IRTATCA)". Supported by the Centre de Recerca Matemàtica, Simons Foundation, Universität Bielefeld, National Science Foundation. January 2015 to June 2015.
6. Responsible researcher of a "Research in Pairs" (CRM) done with A. Berenstein (Oregon University, USA) and V. Retakh (Rutgers University, USA). June-July 2014.
7. Researcher of the project "Grup de recerca en Teoria d'Anells". Funded first by the CIRIT and afterwards by the DURSI (Generalitat de Catalunya). Projects numbers: 1996SGR 00027, 1998SGR 00053, 2000SGR 00058, 2001SGR 00171, 2005SGR00206 and 2009SGR1389. From 1996 to 2013. Project leader: Pere Ara Bertrán.
8. Researcher of the project "Estructura y clasificación de anillos, módulos y C*-álgebras". DGI MICIIN MTM2011-28992-C02-01 (2012–2016). Project leader: Pere Ara Bertrán.
9. Researcher of the project "Estructura de anillos, C*-álgebras y categorías de módulos". DGI-FEDER MTM2008-06201-C02-01 (2009–2011). Project leader: Pere Ara Bertrán.

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10. Researcher of the project “Módulos proyectivos sobre anillos de endomorfismos y álgebras de grupo”. DGI Ministerio de Ciencia y Tecnología–FEDER MTM2005-00934 (2006–2008). Project leader: Pere Ara Bertrán.
 11. Responsible researcher of the grant ESTANCIAS DE INVESTIGADORES Y PROFESORES EXTRANJEROS EN RÉGIMEN DE AÑO SABÁTICO EN ESPAÑA given to Silvana Bazzoni (Università di Padova). MEC SAB2005-0139. From September 1st 2006 to February 28th 2007.
 12. Responsible researcher of the grant ESTANCIAS DE DOCTORES EXTRANJEROS EN ESPAÑA of Pavel Prihoda (Charles University) MEC SB2005-0182. From September 1st 2006 to September 30th 2007.
 13. Project leader together with Francesc Perera, of the *Research Program*: “Continuous and Discrete Methods in Ring theory”. Supported by the Centre de Recerca Matemàtica. Course 2006-07.
 14. Project leader of the project 2002PIV00045 (Generalitat de Catalunya) that supported the stay of Professor Alberto Facchini at the Centre de Recerca Matemàtica the year 2003.
 15. Researcher of the project “Módulos proyectivos sobre anillos de endomorfismos y álgebras de grupo”. DGI Ministerio de Ciencia y Tecnología–FEDER BFM2002–01390 (2003–2005) Project leader: Pere Ara Bertrán.
 16. Researcher of the project “Módulos Proyectivos sobre ciertas clases de anillos”. DGESIC PB98-0873 (1999–2002) Project leader: Pere Ara Bertrán.
 17. Researcher of the project “Teoría K no estable y aplicaciones a categorías de módulos”. DGICYT PB95–0626 (1996 – 1998) Project leader: Pere Ara Bertrán.
 18. Spanish Project leader of the project “Algebra non commutativa: anelli e moduli”. Funded by CNR (Italy) 1997-98. Italian Project leader: Alberto Facchini.
 19. Project “Inyectividad en anillos clásicos de cocientes”. Funded with a postdoctoral grant MEC/Fullbright and made under the supervision of Carl Faith. From January 1st 1993 to September 30th 1994.
 20. Researcher of the project “Grupos de Grothendieck de anillos y cancelación de módulos” DGICYT PB92-0586 (1992–1995) Project leader: Pere Ara Bertrán.
 21. Researcher of the project “ C^* -álgebras con suficientes representaciones de dimensión finita y estructura de anillos regulares” DGICYT PB89-0296 (1990–1992) Project leaders: First Pere Menal Brufal and after he passed away Pere Ara Bertran became leader of the project.
 22. Researcher of the project “Teoría de anillos: anillos graduados y anillos regulares, aplicación a anillos de grupo y C^* -álgebras”. Subvencionado por CICYT PB86-0353-C02-01. Desde 1987 hasta 1989. Project leader: Pere Menal Brufal.
 23. Researcher of the project “Teoría de anillos”. CAYCYT 3556/87. Project period 1986. Responsible researcher: Pere Menal Brufal.

4.7 Research stays

- Long stays (at least four weeks) at:

1. *Rutgers University* (New Jersey, USA). From January 1st 1993 to September 30th 1994. I was awarded with a post-doctoral grant MEC-Fulbright.

4.7 Research stays

2. From October 1st 2004 to September 11th 2005 I was visiting professor at the Mathematics Department of the *Università di Padova* (Italia).
3. From September 1st 2006 to February 15th 2007 I visited the *Centre de Recerca Matemàtica*. I was coordinator of the Research Program: *Continuos and Discrete Methods in Ring Theory*.
4. *Universidad Autónoma Metropolitana-Iztapalapa* (México, DF) I visited for one month in 2010. The purpose of the visit was making a course for doctoral students at that university.
5. From mid February 2011 to the end of May 2011 I was Visiting Professor at the Mathematics Department of NTNU (Trondheim, Norway).
6. I spent June and July 2011 at Universität Bielefeld (Germany) invited as a guest of the collaborative research center “Spectral Structures and Topological Methods in Mathematics”.
7. From January 2015 to July 2015 I was at the Centre de Recerca Matemàtica (Barcelona, Spain) as a coordinator of the Research Program: Interactions between Representation Theory, Algebraic Topology and Commutative Algebra (IRTATCA).

- Invited short research stays at :

1. *Università di Verona* (Verona, Italy) April 13-22, 2016.
2. *Hacettepe University* (Ankara, Turkey) September 1-12, 2014. Supported by a grant of the Turkish Academy of Sciences (Tübitak).
3. *University of Athens* (Athens, Greece) I spent one week visiting the year 2011.
4. *Universidad Autónoma Metropolitana-Iztapalapa* (México, DF) I visited for 3 weeks the year 2006.
5. *Università degli Studi dell’Insubria* (Varese, Italia) where I visited several times for one week during the year 2005, I visited also in 2007 for one week. I made a stay of two weeks in 2008.
6. *Charles University* (Prague, Czech Republic) where I made visits of one week the years 2003, 2004 and 2009. The year 2013 I made a stay of three weeks as a collaborator of the project GAČR P201/12/G028.
7. *Ludwig-Maximilians-Universität*, Munich (Germany). One week February 2002.
8. *Alfred Renyi Mathematics Institute* (Budapest, Hungary) where I made a three weeks visit in 2000.
9. *Università di Padova* (Padova, Italia) I made a couple of visits, two weeks long, the first one in 2000 and the second in 2004. I also made shorter visits of one week in 2007, 2008, 2012 and 2013.
10. *Università di Udine* (Udine, Italia) where I visited once in 1997 and another time in 1998. Both times I stayed for one week.
11. *Università di Ferrara* (Ferrara, Italia) where I have been several times between 1995 and 2000. The visits were from 1 week to 4 weeks long.
12. *University of Madison-Wisconsin* (Madison, USA), one week in 1994.
13. *University of California at Santa Barbara* (Santa Barbara, USA), one week in 1994.
14. *Ohio University* (Athens, USA) 1 week in 1993.
15. *University of Iowa* (Iowa City, USA) two weeks 1993

4.8 Grants awarded

I was awarded with a post-doctoral MEC-Fulbright grant to support my stay at Rutgers University for the whole year 1993. This grant was renewed for the year 1994.

I have received economical support from UAB:

- To attend the conference *Algebra Conference for the 60th birthday of Adalberto Orsatti*, Padua (Italia), June 1997.
- To support the organization of *Joint Mathematical Weekend EMS-SCM* September 16, 17, 18, 2005 (Barcelona). This support was asked jointly with José Antonio Carrillo de la Plata.

I have received grants of the *Gruppo Nazionale per le Strutture Algebriche, Geometriche e le loro Applicazioni* (Italy) in three occasions: 2000, 2005 and 2008. The first two were to support stays at the Università di Padova and the third one was a combined stay at the Università dell'Insubria (Varese) and the Università di Padova.

This September 2014, I was awarded a grant from the Turkish Academy of Sciences (Tübitak) to support my visit at the Mathematics Department of Hacettepe University (Ankara, Turkey)

I have been awarded a number of Erasmus Exchange programs to support my visits to Università di Ferrara, Ludwig Maximilian University (Munich, Germany), Università di Padova.

Many of my invited research stays have been (partly) supported by some specific project of the local research group. I want to stress:

- the two month support given by the **Sonderforschungsbereich 701, Spektrale Strukturen und Topologische Methoden in der Mathematik**. Universität Bielefeld. To support my stay in 2011.
- the project GAČR P201/12/G028 that fully supported my stay at Charles University (Prague) in February 2013.

4.9 International conferences and research activities organization:

1. Member of the scientific committee of the conference: *Czech, Slovenian, Austrian, Slovak and Catalan Mathematical Societies joint meeting CSASC2017*, 11 - 14. September, 2018. Bratislava.
2. Coorganizer of the conference: *Czech, Slovenian, Austrian, Slovak and Catalan Mathematical Societies joint meeting CSASC2016*, Barcelona. September 20–23, 2016.
3. Coorganizer of the special session: *Applications of categories in Algebra and Topology* at the CSASC2016, Barcelona. September 20–23, 2016.
4. Co-organizer of the special session: *Associative rings and algebras* at the First Joint Meeting Brazil-Spain of Mathematics (Fortaleza, Brazil). December 2015. 2015.
5. Organizer of the Advanced Course: *(Re)emerging methods in Commutative Algebra and Representation Theory*, Centre de Recerca Matemàtica. February 9–13, 2015.
6. Organizer of the Advanced Course: *Building bridges between Algebra and Topology*, Centre de Recerca Matemàtica. April 13–17, 2015.
7. Organizer of the Workshop: *Homological bonds between Commutative Algebra and Representation Theory*, Institut de Matemàtiques de la Universitat de Barcelona. February 16–20, 2015.

4.9 International conferences and research activities organization:

8. Organizer of the Workshop: *Brave new Algebra: opening perspectives*, Centre de Recerca Matemàtica. April 20–24, 2015.
9. Organizer of the Conference: *Opening Perspectives in Algebra, Representations, and Topology* (OP-ART), Centre de Recerca Matemàtica. May 25–29, 2015.
10. Organizer, together with Wolfgang Pitsch (UAB) and Santiago Zarzuela (UB), of the research program at the Centre de Recerca Matemàtica: “Interactions between Representation Theory, Commutative Algebra and Algebraic Topology” IRTATCA. From January to June 2015.
11. I organized, jointly with Silvana Bazzoni (Università di Padova), Alberto Facchini (Università di Padova) and Ángel del Rio (Universidad de Murcia), the special session *Rings, modules, categories and applications* at the **First Joint Meeting RSME-SMC-SEMA-SIMAI-UMI** (Bilbao, June 30 -July 4, 2014)
12. I was member of the scientific committee of the **INTERNATIONAL CONFERENCE ON ALGEBRA-Dedicated to the celebration of Patrick Smith’s and John Clark’s 70th birthdays** Balikesir –TURKEY, 12 - 15 August, 2013
13. I was member of the scientific committee of the conference **Non-commutative rings and their applications,III** LENS (France) 1-4 July 2013.
14. I organized, jointly with Lidia Angeleri-Hügel (Università dell’Insubria, Varese, Italy) and Henning Krause (Universität Paderborn, Germany), the workshop on *Interactions between representation theory and commutative algebra*. That was held at the Universitat de Barcelona (Barcelona, Spain), September 27 to 29 2008. The meeting was sponsored by the Centre de Recerca Matemàtica (Barcelona).
15. Organization of the intensive course **Quasideterminants and Universal Localization** delivered by V. Retakh (Rutgers University) and R. L. Wilson (Rutgers University). The course was held at the Centre de Recerca Matemàtica from January 30 to February 10, 2007 and inside the Research Program *Discrete and continuous methods in Ring Theory*.
16. Organization, jointly with Jan Trlifaj (Charles University, Prague) and Ramon Antoine (Universitat Autònoma de Barcelona) of a special session at the **Czech-Catalan Conference in Mathematics** (Barcelona, September 22 -23, 2006).
17. Organization, jointly with Lidia Angeleri-Hügel (Università dell’Insubria, Varese, Italy), of the session *Module Theory and Representations of Algebras* at the **Joint Mathematical Weekend EMS-SCM**. Barcelona, September 17 -18 2005.
18. Organization, jointly with Jan Trlifaj (Charles University, Prague) of a special session at **The First Czech-Catalan Conference in Mathematics**. Prague, May 27- 28, 2005.
19. Organization, jointly with Pere Ara (Universitat Autònoma de Barcelona, of the **M.A.T. Seminar** (Séminaire Méditerranéen d’Algèbre et Topologie)Barcelona, October 4–5, 2002.
20. Referee of one of the abstract sessions of the **3rd. European Conference of Mathematics**. Barcelona, July 2000.

4.10 Conference Talks

A more or less complete list of the talks I have made is:

1. *Monoids of countably generated pure-projective modules* communication at the *Conference on Rings and Factorizations* 19-23 February, 2018, Graz, Austria.
2. *Pure projective modules over (one dimensional) commutative noetherian local rings: Comparing with the completion* at the special session on Algebra of the *Joint meeting of the Edinburgh Mathematical Society and Societat Catalana de Matemàtiques* Sep 27, 2017 - Sep 29, 2017 ICMS, 15 South College Street, Edinburgh,
3. *Pure-projective modules over (one dimensional) local noetherian (domains) rings.* Invited communication at the special session *NonCommutative algebra* at IV ENCUESTRO CONJUNTO RSME-SMM 19-22 junio 2017, Valladolid, Spain.
4. *A construction of big Maximal Cohen-Macaulay modules: Comparing with the completion.*
 -Invited communication at the special session *Commutative algebra* at *Meeting of the Catalan, Spanish, Swedish Math Societies*, 12-15 June 2017, Urmea (Sweden).
 -Invited communication at the special session *Associative rings and algebras* at the First Joint Meeting Brazil-Spain of Mathematics. (Fortaleza, Brazil). December 2015.
 -Invited talk as a main speaker at the conference *Some Trends in Algebra, STA 2015.* Prague, Cech Republic. September 2015.
5. *Big pure-projective modules over noetherian domains* Invited plenary talk at the *International Conference on Algebra and its Applications* ICAA-16. Aligarh Muslim University (India). November 12-14, 2016.
6. *Big Pure-projective modules over commutative noetherian local rings.* Invited talk at the *International Conference in Homological Algebra.* Lexington, Kentucky, Estados Unidos. July 2015.
7. *Big Pure-projective modules.* Invited communication at the special session *SS 32A, Special Session on Homological and Combinatorial Commutative Algebra* at the Joint International Meeting of the American Mathematical Society (AMS), European Mathematical Society (EMS), and Sociedade Portuguesa de Matematica (SPM). Porto, Portugal. June 2015.
8. *Construction of modules with a prescribed direct sum decomposition: the case of Artinian modules revisited.* Invited talk as a main speaker at the conference *Algebraic Structures and their applications.* Spinetto (Italy), June 2014.
9. *Semilocal rings, projective modules and decompositions of infinite direct sums of modules.* Invited expository talk at *Maurice Auslander Distinguished Lectures and International Conference.* Woods Hole, Massachusetts (United States), May 2014.
10. *Inversion height, rational series and crossed products,* invited talk in a *Special Session on Noncommutative Rings and Modules at the AMS Central Fall Section Meeting.* Saint Louis, USA. October 2013.
11. *Definable classes and Mittag-Leffler conditions,* presented at a parallel session in the conference *Classical Aspects of Ring Theory and Module Theory.* Bedlewo, Poland. July 2013.
12. *Inversion height, rational series and crossed products.* Invited main speaker of the conference *Non commutative rings and their applications, III.* Lens, France. July 2013.

4.10 Conference Talks

13. *Inversion height and crossed products*, invited talk in a Special session of the *Congreso bienal de la Real Sociedad Matemática Española*. Santiago de Compostela, January 2013.
14. *Effective construction of non finitely generated projective modules*, presented at the *International Conference on Representations of Algebras (ICRA 2012)*. Bielefeld (Germany), August 2012.
15. *Infinite idempotent matrices, sequences of ideals and countably generated projective modules*. Invited talk in a parallel session of the *XXXI Ohio State-Denison Mathematics Conference, Ring Theory session in honor of T. Y. Lam*. Ohio State University, Columbus, USA. May 2012.
16. *Almost projective modules and Mittag-Leffler conditions*, invited talk at the conference *Large Cardinal Methods in Homotopy Theory*. IMUB, Universitat de Barcelona (Spain). September 2011.
17. *Projective modules and semilocal rings*. Series of five invited talks at the conference *ICMSIC 2010, Rings and Near Rings*. Shillong, India. September 2010.
18. *Infinitely generated projective modules over semilocal rings*, presented at the conference *International Algebraic Conference dedicated to the 70th birthday of A. V. Yakovlev*. Sant Petersburg, Russia, June 2010.
19. *Infinitely generated projective modules over pullbacks of rings*, invited talk at a special session of the conference *The first international conference on Mathematics and Statistics AUS-ICMS'10*. Sharjah, United Arab Emirates, March 2010.
20. *Almost free modules and Mittag-Leffler conditions*, invited talk at the conference *Some Trends in Algebra '09*. Prague, Czech Republic. September 2009.
21. *Big Projective Modules over Noetherian Semilocal Rings*, presented at the conference *Lie and Jordan Algebras, Their Representations and Applications*, Manaus, Brazil, July 2009
22. *Infinitely generated projective modules over pullbacks of rings*, invited talk at the conference *Non commutative rings and their applications*. Lens, France, June 2009.
23. *Big Projective Modules over Noetherian Semilocal Rings*, invited talk in a special session of the *AMS Special Session on Noncommutative Algebra at the AMS-MAA Joint Mathematics Meeting*. Washington DC (USA), January 2009.
24. *The inversion Height of the free field is infinite*, presented at the conference *International conference on Ring and Module Theory*, Athens (Ohio, USA) April 2008.
25. *Mittag-Leffler conditions for cotorsion pairs*, presented at the conference *Rings and Things*, Zanesville (Ohio, USA) June 2007.
26. *Mittag-Leffler conditions for modules*, presented at the conference *Rings and Categories of Modules. Conference in honor of Kent R. Fuller*. Bressanone (Italia), December 2006.
27. *Relative Mittag-Leffler modules*, presented at the conference *Non Commutative Algebra Conference. Granada 2006*. Granada, September 2006.
28. *A solution to the Baer splitting problem*, presented at the conference *Algebras and Coalgebras. Tools for Geometry Physics and Computer Science*, Cairo (Egypt), March 2006.
29. *Cotorsion pairs and the Mittag-Leffler condition*, presented at the conference *The First Czech-Catalan Conference in Mathematics*, Prague (Czech Republic), May 2005.

30. *Divisible Modules and Localization*, presented at the workshop *New Trends in Infinite dimensional Tilting Theory*, Varese (Italia), April 2005.
31. *Tilting modules are of finite type*,
 - presented at the conference *Conference on Algebra and its Applications*, celebrated in Athens, Ohio (Estados Unidos), Marzo 2005.
 - Invited talk in a special session at the *2nd Joint Meeting of AMS, DMV*, Mainz (Germany), June 2005.
32. *Divisible Modules and Localization*, invited talk in a special session at the *Primer congreso conjunto de Matemáticas RSME-SCM-SEIO-SEMA*, Valencia (España), February 2005.
33. *Local morphisms and modules with a semilocal endomorphism ring*, invited talk at the *Ferrara Algebra Workshop*, Ferrara (Italia), June 2004.
34. *Modules with a semilocal endomorphism ring revisited*, invited talk in a special session of the conference *VI Reunión conjunta American Mathematical Society y Sociedad Matemática Mexicana*, Houston (USA), May 2004.
35. *Flat and Projective modules*, invited talk in the conference *Some Trends in Algebra '03*, Prague (Czech Republic), September 2003.
36. *Simple modules over small von Neumann regular rings*,
 - presented at the conference *Antalya Algebra days*, Antalya (Turkey), May 2003.
 - invited talk in the special session “Ring Theory” at the conference *First Joint Meeting RSME-AMS*, Sevilla (España), June 2003.
37. *Baer duality and the AB_5^* condition*, invited plenary talk in the conference *Algebra Conference Venezia 2002*, Venezia (Italia), June 2002.
38. *Teoría de dualidad y anti-isomorfismos de retículos*, invited talk at the *VII Jornadas Españolas en Teoría de Anillos*, A Coruña (Spain), April 2002.
39. *Big finitistic dimension equals Krull dimension*, joint talk with Javier Sánchez at the *Summer School 2001: Homological conjectures for finite dimensional algebras*, Nordfjordeid (Noruega), August 2001.
40. *Dualidad de Morita para anillos HNP*, presented at *Jornadas Españolas en Teoría de Anillos* Universidad de Almería (España), April 2001.
41. *A solution to a problem of Müller*, presented at the seminar *Homological methods in module theory*, organized by IAM Cortona (Italia), September 2000.
42. *Baer duality for commutative rings*, presented at the workshop *Rings, Modules and Abelian Groups*, Padova (Italia), December 1999.
43. *Examples of semilocal rings*, presented at the conference *Some Trends in Algebra*, Prague (Czech Republic), September 1999.
44. *Duality theory and lattice anti-isomorphisms*, invited talk at the workshop *Rings, Modules and Abelian Groups*, Brixen (Italia), July 1999.

4.11 Other conferences attended:

45. *Semilocal rings with prescribed K_0* , presented at the conference *Interactions between Ring Theory and Representation of Algebras*, Murcia (España), June 1998.
46. *AB-5* rings and Baer duality*, presented at *Algebra Conference for the 60th birthday of Adalberto Orsatti*, Padova (Italia), June 1997.
47. *AB-5* y compacidad lineal*, presented at *Segundas Jornadas Españolas en Teoría de Anillos* Universitat Autònoma de Barcelona (España), April 1997.
48. *The Ore condition for polynomial rings*, presented at *Abelian Groups and Modules, 1994 Padova-conference*, Università di Padova, Padova (Italia), June 1994.
49. *Modules with semilocal endomorphism ring*,
 - Invited talk at the *I Reunión conjunta American Mathematical Society y Sociedad Matemática Mexicana*, Universidad del Yucatán, Mérida (México), December 1993.
 - Invited talk at the *Dennison Conference*, Ohio State University, Columbus (USA), March 1994.
50. *Power series rings that are Bezout or semihereditary*, presented at
 - III week on Algebra and Algebraic Geometry, Universidad de la Laguna, Tenerife (Spain), June 1992.
 - AMS Meeting 882, Northern Illinois University, De Kalb, Illinois, (USA), May 1993.
51. *Polynomial rings and power series rings with injective classical quotient ring*, International Workshop on Local Cohomology, Geometric Applications and Topics, Universidad de Granada, Granada, September 1991.

4.11 Other conferences attended:

- *Fist International Meeting on Ring Theory*, Universidad de Granada (Spain), September 1986.
- NATO Advanced Research Work-Shop on “Perspectives in Ring Theory”, Antwerp University, UIA (Belgium), July 1987.
- *Symposium on the Current State and Prospects of Mathematics*, Institut d’Estudis Catalans, Barcelona (Spain), June 1991.
- *Non commutative rings and modules*, Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach (Germany), July 1994.
- *Rencontres du Contact Franco-Belge à Reims*, Université de Reims (France), June 1995.
- *Algèbres Enveloppantes, Groupes Quantiques et Théorie des Représentations*, Paris (France), March 1996.
- *Ring Theory Conference*, Miskolc (Hungary) July 1996.
- *Algebraic geometry and its applications. Congress in honour of Prof. Dr. Y. Manin*, Antwerp (Belgium), 12-14 March 1997.
- Euroconference *Infinite Length Modules*, Universität Bielefeld (Germany) September 1998.
- *Some Trends in Algebra '01*, Prague (Czech Republic), September 2001.

- *Twenty Years of Tilting Theory*, Fraueninsel/Chiemsee (Germany), November 2002,
- *International Conference on Modules and Comodules*, in honor of Robert Wisbauer, Porto University (Portugal), September 2007.
- *t-structures and related topics*, University of Stuttgart (Germany). July 7-9, 2011.

4.12 Seminar talks and research courses:

Since I incorporated into the research group in **Ring Theory** at the UAB I have participated actively in the Seminar of the group. In this seminar we have some sessions on recent research results either by members of the group or by visiting Professors, but also we organize seminars on a monographic topic that is developed by different members of the group. Most of the time, these seminars are intended to help PhD students with the subject. Some of the topics I have received/delivered lectures in this kind of seminars include:

- Non commutative noetherian rings. Jacobson conjecture.
- Hopf Algebras and Quantum groups.
- Classification of semisimple Lie algebras.
- Universal Localization.
- Representation theory of finite dimensional algebras.
- Homological Algebra. Cotorsion pairs.
- Derived categories.
- Dubrovin's embedding of some group algebras into division rings.
- Sofic groups. A conjecture by Kaplansky.

Inside our running seminar I have organized some more or less courses for members of our research group (and other interested participants). Most interesting were the courses:

- *Hoschild (co)homology and cyclic homology* by Dragos Steffan (University of Bucarest, Romania) and Claudia Menini (Universita di Ferrara) (10 hours course), February 2005.
- *Cluster categories, 2-Calabi-Yau categories, cluster tilted algebras and support tau-tilting* by Idun Reiten, NTNU, Norway (6 hours course), June 2013.
- *Noncommutative birational geometry and clusters* by Arkady Berenstein (U. Oregon) and V. Retakh (Rutgers University). This was a 6 hours course made on June 2014.

From time to time, I also participate actively in the seminar of the **algebraic topology group**. Giving some talks when I am interested on the topic they are developing

Invited courses about my research outside the Universitat Autònoma de Barcelona:

1. *Mittag Leffler conditions on modules*. Ciclo di lezioni di didattica integrativa al corso "Anelli e moduli". Master Erasmus-Mundus: ALGANT. Università di Padova. Italy. (10 hours, April 2013)
2. *Curso de módulos de Mittag-Leffler*. Docencia de soporte al Postgrado. Universidad Autónoma Metropolitana (UAM). Mexico DF. (8 hours, February 2010)

4.12 Seminar talks and research courses:

3. *Embedding domains into division rings*, short course for graduate students of 8 hours, Dipartimento di Matematica della Università di Ferrara (Italy), January 2005. Erasmus exchange program.
4. *Linearly compact and $AB5^*$ modules. Duality theory*. Invited six hours course at the Ludwig-Maximilians-Universität, Munich (Germany), February 2002. Erasmus exchange program.

Invited research seminar talks outside the Universitat Autònoma de Barcelona:

1. *Definable classes and Mittag-Leffler conditions* Invited talk at the Algebra Seminar, Charles University (Prague), February 2013.
2. *Separable modules, almost projective modules and (strict) Mittag-Leffler conditions*. Invited talk at the Algebra Seminar, University of Athens (Greece), December 2011.
3. *The combinatorics around an idempotent matrix*. Invited talk at the seminar of the **Sonderforschungsbereich 701, Spektrale Strukturen und Topologische Methoden in der Mathematik**. Universität Bielefeld, June 2011.
4. *Mittag-Leffler conditions on modules*. Invited talk at the Algebra Seminar, NTNU (Trondheim, Norway), April 6, 2011.
5. *Infinitely generated projective modules over semilocal rings*. Invited talk at the Algebra Seminar, NTNU (Trondheim, Norway), February, 2011.
6. *Big projective modules over Noetherian semilocal rings*. Invited talk at the Algebra Seminar, Charles University (Prague), February 2009.
7. *La propiedad de Mittag-Leffler relativa a una clase de módulos*, invited talk at the Algebra Seminar, Universidad Autónoma Metropolitana-Iztapalapa, México DF, July 2006.
8. *Rational power series from the point of view of formal languages and automata theory*, series of three talks at the Dipartimento di Informatica e Comunicazione de la Università degli Studi dell'Insubria, Varese (Italy), April 2005.
9. *Tilting modules are of finite type*, two invited talks at the Algebra Seminar of the *Università di Padova*, Padova (Italy), March 2005.
10. *Endomorphism rings. The commutative case vs. the non-commutative*, Invited talk at the Algebra Seminar, *Università di Padova*, Padova (Italy), November 2004.
11. *Embedding the free algebra into a division ring*, Invited talk at the Algebra Seminar, *Università di Padova*, Padova (Italy), February 2004.
12. *Morphisms of Rings into Simple Artinian Rings* Invited talk at the Algebra Seminar, Università di Ferrara (Italy), July 1999.
13. *Projective modules over semilocal rings*, Invited talk at the Algebra Seminar, Università di Udine (Italy), November 1997.
14. *Endomorphism rings and tensor products of linearly compact modules*, Invited talk at the Algebra Seminar, Università di Ferrara (Italy), September 1995.
15. *Modules with semilocal endomorphism ring*,
- Invited talk at the Algebra Seminar, Rutgers University (USA), January 1994.

4.13 Some courses and monographic seminars attended outside UAB

- Invited talk at the Algebra Seminar, Università di Ferrara (Italy), September 1995.

16. *The Ore condition for polynomial rings,*

- Invited talk at the Algebra Seminar, Rutgers University (USA), March 1993.
- Invited talk at the Colloquium of the Mathematics Department, Ohio University (USA), May 1993.
- Invited talk at the Algebra Seminar, University of California at Santa Barbara (USA), May 1994.
- Invited talk at the Algebra Seminar, University of Madison-Wisconsin (USA), May 1994.

4.13 Some courses and monographic seminars attended outside UAB

- I attended a summer school in Cortona (Italy), organized by the Scuola Normale Superiore di Pisa, in August 1988. The courses were:
 - *The Brauer Group*, F. van Oystaeyen.
 - *Perfect and Semiperfect Rings*, G. Azumaya.
- While in Rutgers University I attended the courses:
 - *Commutative Algebra*, W. Vasconcelos.
 - *Noncommutative Determinants*, coordinated by I. Gelfand.
- I attended the Erasmus Intensive Programme in Algebra, in Edinburgh (Scotland) From March 26th to April 3rd, 1995. The courses were:
 - *Operator Spaces*, R. R. Smith and G. Pisier.
 - *Gröbner Basis Methods*, D. Eisenbud.
 - *Knot Theory*, L. Kauffman.
 - *Finite Dimensional Algebras*, I. Reiten.
 - *Trace Forms*, J. P. Serre.
- I attended the following session of the Séminaire M.A.T. (Méditerranéen d'Algèbre et Topologie) that used to be coordinated by the University of Montpellier:
 - *Algèbres de Hopf, renormalisation et problème de Riemann-Hilbert*. A. Connes and D. Kreimer, University of Nice, March 17–18, 2000.
 - Montpellier Session, January 18–19, 2002. The talks were:
 - Bernhard Keller (Université Paris VII), *Cohomologie de Hochschild et groupes de Picard dérivés*.
 - Steffen Koenig (Leicester University), *Structures of finite dimensional algebras arising in algebraic Lie theory*.
 - Barcelona session, October 4–5, 2002. The talks were:
 - Claus Michael Ringel, Universität Bielefeld, *Indecomposable algebraically compact modules for tubular algebras*.
 - Jan Trlifaj, Charles University (Prague), *Approximations and the Finitistic Dimension Conjectures*.

5 Teaching activity

- I have attended the following *Advanced Courses* organized at the Centre de Recerca Matemàtica:
 - *Advanced Course on Geometry and Physics*, July 1996.
 - *Advanced Course on Algebraic Quantum Groups*, September 2000.
 - *Advanced Course on Polynomial Identity Rings*, July 2003.
 - *Advanced Course on Quasideterminants and Universal Localization*, January-February 2007.
 - *(Re)emerging methods in Commutative Algebra and Representation Theory* 9-13 February, 2015.
 - *Building bridges between Algebra and Topology* 13-17 April, 2015.
- I attended to the courses *Perspectives on rings and algebras* organized at the Universidad de Murcia by the *Red de àlgebra no conmutativa*, from June 29 to July 1, 2006.

5 Teaching activity

Since I started to work at the Mathematics Department of the UAB I have had teaching responsibilities. My teaching activity has been recognized with 6 **tramos docentes** from the Spanish Government and 6 from the Catalan Government.

My teaching duties at UAB the course 2017-2018 are:

- *Pràctiques externes* I am coordinating the internships in industry of students of our degrees on Mathematics, double degree on Mathematics and Physics, degree on Applied Statistics and double degree Statistics-Sociology.
- *Linear Algebra for students on Statistics* I am teaching the problem sessions.
- *Resolució de Problemes Matemàtics* these is a course offered to secondary school students that want to improve their mathematics skill, it is oriented towards the preparation of the Mathematics Olympiad.

Im a supervising the bachelor thesis:

- Aumatell Garriga, Miriam, *Grups de reflexió finits i la seva classificació. Grups de Coxeter*.
- Gomez Omella, Meritxell (jointly with Jaume Coll), *Origami i teoria de Galois*
- Reche Polo, Lara *Evolution Algebras: aplicacions a la Genètica*
- Vidal Molera, Berta *Matemàtiques i cristal·lografia: simetries a la natura i la seva idealització matemàtica*

My teaching duties at UAB the course 2016-2017 were:

- *Galois Theory* I am the responsible professor (3rd year, Mathematics degree, 4th year, Physics and Mathematics double degree). I am also teaching the problem sessions.
- *Resolució de Problemes Matemàtics* these is a course offered to secondary school students that want to improve their mathematics skill, it is oriented towards the preparation of the Mathematics Olympiad.

I supervised two bachelor thesis:

- Aidé Borrego (jointly with Jaume Coll), on *Origami and Galois Theory*.

- Guillem de la Rosa, on *The Dirichlet Theorem on arithmetic progressions*.

I also delivered a talk in *Tendències actuals de les matemàtiques* which is a subject aimed to present advanced material to our last year undergraduates. The title of the talk was *The mathematics around Dynkin diagrams*.

The course 2016-2017 I was also invited to teach 8 hours at the Università di Verona (Italy). I delivered the minicourse "Finitistic dimensions for commutative noetherian rings", given from 25th May to 09th June 2017, inside the course "Homological algebra" in the Master's Degree LM-40 Mathematics, AY 2016-17 (Università di Verona).

My teaching duties the course 2015–2016 were:

- *Galois Theory* I was the responsible professor (3rd year, Mathematics degree, 4th year, Physics and Mathematics double degree). I was also teaching the problem sessions.
- I was the responsible professor of *Calculus* (1st year, degree on *Gestió Aeronàutica*), in which I taught also problem sessions.
- Problem sessions for the course *Algebra* (1st year, degree on *Gestió Aeronàutica*),
- Seminar sessions for the course *Linear Algebra* (1st year, Physics and Mathematics double degree and Mathematics degree).

I was also supervising the bachelor thesis of the following students :

- Catalin Dediu, *El Teorema d'Irreductibilitat de Hilbert i les seves aplicacions al Problema de Galois Invers*.
- Mireia González Bedmar, *On module categories: almost split sequences and the Auslander-Soroch Theorem*.
- Ignasi Gros (5th year, Physics and Mathematics double degree). *Representations in Lie Theory and its applications to Physics*.

The material for the courses I teach at the UAB can be found at the [Campus Virtual](#).

I have written jointly with Ferran Cedó **the book**: *Àlgebra Lineal i Geometria per a Físics*. Intended for 1st year Physics students, it is accessible at the [Campus Virtual](#) of the UAB.

It is customary in our department that after, first two years, and now three or four years we have to change our teaching. Therefore the list of courses we teach varies a lot, this is also augmented by frequent changes in our educational laws that result in changes in our study programs. Here is a detailed list of the courses I have taught in more than 30 years of experience.

1. The course 2013-2014 I was teaching part of the doctoral course *Homology in Algebra and Geometry* (Barcelona Graduate School of Mathematics, BGSMath).
2. *Doctoral courses of the Mathematics Department*
 - Seminari de Teoria d'Anells I, 1997-98
 - Seminari de Teoria d'Anells II, 1998-99
 - Rings and Algebras: 1st semester 1998-99.
 - Commutative Algebra: 1st. semester 1999-00, 2001-02, 2003-04. 2005-06.
3. *Master in Advanced Mathematics (MAMA)*

5 Teaching activity

- Algebra and Algebraic Geometry. 1st semester 2007-2008, 2009-2010.

4. *Mathematics Degree*

- Àlgebra Lineal (Responsible professor, 1st year students): 2008-2009, 2009-2010. I was also giving problem sessions the courses: 2011-2012, 2012-2013 and 2013-2014.
- Estructures Algebraiques (Responsible professor, 2nd. year students). 2nd. semester 2011-12, 2012-13 and 2013-14.
- Àlgebra Commutativa (Problem sessions, 4th. year students). 1st semester 2011-12.
- I also delivered a talk I have made on of the talks the years 2009-10 and 2011-12. The title was *170 anys de Quaternions: de la física a l'animació per ordinadors*.
- Teoria de Galois (Responsible professor, 3rd./4th year students): 2014-2015. I was also teaching the problem sessions.

5. *Llicenciatura en Matemàtiques (Mathematics)*

- Àlgebra II (Problems session, 3 rd. year students). During the course 1988-89.
- Àlgebra II (Responsible professor, 2nd. year students): 1st. semester of the courses 1994-95, 1995-96 and 1996-97.
- Àlgebra Lineal (Problems session, 1st year students): 1st. semester 1997-1998
- Teoria d'Anells (Responsible professor, 4th. year students): 1st semester 1996-97, 1997-98, 1998-99.
- Geometria Projectiva (2nd. year students, 2nd. semester): Problem sessions, the course 1995-96, and I was the responsible professor the course 1997-98, 1999-00 and 2000-01.
- Àlgebra (Problem sessions, 4th year students): 1st. semester 2002-03.
- Anells i Grups (Responsible professor, 4th. year students): 1st. semester 2005-06, 2006-07 and 2007-08.
- Matemàtica Discreta (Responsible professor, 1st. year students): 2nd. semester 2007-08.

6. *Llicenciatura en Biologia (Biology)*

- Matemàtiques (Problems session, 1st. year students). During the course 1985-86.

7. *Llicenciatura en Informàtica (Computer Science)*

- Àlgebra (Problems session, 1st. year students)). During the courses 1985-86, 1986-87 and 1987-88.

8. *Llicenciatura en Física (Physics)*

- Àlgebra lineal i geometria (Problems session, 1st. year students). During the course 1988-89.
- Mètodes matemàtics A (Responsible professor 1st. year students). During the courses 1998-99, 1999-00, 2000-01, 2001-02.
- Àlgebra lineal i geometria (Problems session, 1st. year students): 2nd. semester 2005-06.

9. *Diplomatura d'Estadística*

- Àlgebra II (Problems sessions, 1st year students): 2nd. semester 2005-06.

10. *Ingenieria Técnica en Informática, Escuela Universitaria de Informática de Sabadell*

- Algorismes i Programes (laboratory session teaching PASCAL 1st year students). During the course 1989-90.
- Probabilitat i Estadística (Responsible professor, 2nd year students). During the courses 1989-90 y 1990-91.
- Àlgebra (Responsible professor, 1st year students). During the year 1991-92.
- Àlgebra (Responsible professor, 1st year students): 1st. semester 1992-93.
- Càlcul I (Problem sessions, 1st year students). During the course 2000-01
- Càlcul II (Responsible professor, 1st year students): 2nd semester 1994-95,1995-96, 1996-97 y 1997-98.
- Fonaments de la Matemàtica Discreta (Responsible professor, 1st year students): 2nd semester 1998-99, 1999-00, 2000-01, 2001-02, 2002-03, 2003-04.
- Àlgebra (Problem sessions, 1st year students): 1st. semester 2000-01, 2001-02 y 2002-03.
- Càlcul (Responsible professor and/or problem sessions, 1st year students): During the courses 2002-03, 2003-04, 2005-06 and 2006-07, 2007-08, 2008-09, 2009-10.

11. Degree in *Electronical Engineering*

- Estadística (Problem sessions, 1st. year students). 2nd semester 2011-12, 2012-13 and 2013-14.

12. Degree in *Gestió Aeronàutica*

- Calculus (Responsible professor 1st. year students). 2014-2015. I also taught problem sessions.

6 Professional Service activities

- Administration duties

I have been active member of many different committees and of the governing bodies to which I have been nominated. Right now I am member of the senate of the Faculty of Sciences of UAB.

I have also participated, in different committees to discuss about different Academic Curricula for our students. For example, during the course 2013-2014 I was member of a committee of the Departament de Matemàtiques (UAB) to design a reform of our master studies.

My starting with a unipersonal administration commitment is the **Coordination of the PhD in Mathematics**, which I am doing since October 2016. The PhD coordinator is also part of the managing team of the Mathematics Department, so apart from the responsibilities derived from the PhD School I attend the weekly meetings of the team to discuss the different issues around the department daily live.

It is worth mentioning that in the last years our PhD School has gone through the process of adaptation to the directions of the European Union given by the Salzburg Document and developed in regulation laws by the Spanish government in 2011.

Parallel to this change we have also seen a strong increasing of the number of predoctoral researchers. Right now our program has 46 PhD students, this number has multiplied by three in the last six years. This is not an isolated phenomena, the three PhD programs in Mathematics that exist right now in Barcelona have similar figures.

- Project Evaluation activity.

From April 2017 I am member of the Advisor Scientific Committee of the [Barcelona Graduate School of Mathematics \(BGSMath\)](#)

6 Professional Service activities

On September 2017 I acted as evaluator for COLCIENCIAS (Colombia)

In June 2016 I acted as evaluator for the Agencia Nacional de Evaluación y Prospectiva (Spain).

In the year 2016 I acted twice as evaluator for FONDECYT (CHILE). I was also evaluating for them by December 2017.

I acted as a reviewer for AGAUR (Generalitat de Catalunya), on November-December 2013, 2014.

I have been reviewer of research projects for the Università di Padova (from June 2001 to the end of 2008), and for the King Fahd University of Petroleum and Minerals (Saudi Arabia), since September 2008 to 2014.

I have acted as a reviewer for the Turkish Academy of Sciences the year 2014.

- Work for journals.

Right now I review around 8-10 papers per year.

Some of the journals I have been acting as a referee are: *Journal of Algebra*, *Communications in Algebra*, *Journal of Pure and Applied Algebra*, *Archiv der Mathematik*, *Acta Mathematica Hungarica*, *Annali dell'Università di Ferrara*, *Journal of Algebra and its Applications*, *Forum Mathematicum*, *Indiana Journal of Mathematics*, *Indian Journal of Pure and Applied Mathematics*, *Publicacions Matemàtiques*, *Mediterranean Journal of Mathematics* *Arabian Journal for Science and Engineering*, *Glasgow Mathematical Journal*, *Mathematica Scandinava*, *Collectanea Mathematica*, *Forum Mathematicum* and for the journals of the *London Mathematical Society*.

I work as reviewer for the AMS.

- I am on the editorial board of *International Electronic Journal of Algebra* since February 2007. This is a project carried on by the group on non-commutative algebra formed by professors from the different universities in Ankara (Turkey). The local people take all the work for editing the journal and, according to my experience, the external editors have very little to do. They care a lot about keeping the quality of the published papers.
- I was on the editorial board of the journal *ISRN Algebra*, from March 2011 to the end of 2013. This was a journal born with the idea of being fast at publishing: two or three editors were receiving the papers and after three weeks they must send a review back. The decision about publishing was taken according to that reviews.
This was a lot of work, as one had to handle a big number of papers from many different topics. Usually the level of the presented papers was not good. Finally, the journal disappeared.

- PhD evaluation.

I have been member of the following PhD Committees:

1. *Monoides de refinament i anells d'intercanvi*, Enrique Pardo Espino directed by Pere Ara (1995) UAB.
2. *Anillos functoriales y categorías localmente finitamente presentadas. Aplicaciones al estudio de anillos de endomorfismos*, Pedro Luis Gómez Sánchez directed by José Luis García Hernández y Juan Martínez Hernández (2001) Universidad de Murcia.
3. *Construccions amb generadors i relacions d'anells i monoides amb condicions de cadena*, Antoine Riobobos directed by Ferran Cedó (2001) UAB.
4. *Estudio de la relación entre propiedades de un anillo y sus anillos de matrices infinitas*, Francisco José Costa Cano directed by Juan Jacobo Simón Pinero (2006) Universidad de Murcia.
5. *Factorization Structures. A Cartesian Product for Noncommutative Geometry*, José Javier López Peña directed by Pascual Jara (2007) Universidad de Granada.

6. *Àlgebres associades a un buirac*, Miquel Brustenga i Bort directed by Pere Ara (2007) UAB.
7. *Algebraic mapping class groups of surfaces with one boundary component*, Lluís Bacardit i Carrasco directed by Warren Dicks (2009) UAB.
8. *On a class of two-relator groups*, Yago Antolín Pichel directed by Warren Dicks (2010) UAB.
9. *Adams Representability in Triangulated Categories*, Oriol Raventós Morera directed by Carles Casacuberta and Fernando Muro (2011) UB.
10. *Direct sum decomposition and weak Krull-Schmidt Theorems*, Marco Perone directed by Alberto Facchini (2011) Università di Padova (Italy).
11. *T-Koszul algebras, resolutions and derived equivalences of endomorphism rings*, Magdalini Lada directed by Idun Reiten (2011) NTNU, Trondheim (Noway).
12. *Contributions to the study of Cartier algebras and local cohomology modules*, Alberto Fernández Boix directed by Josep Álvarez-Montaner and Santiago Zarzuela (2014) UB, Barcelona.
13. *Tilting Theory for Commutative rings*, Michael Hrbek directed by Jan Trlifaj (2017) Charles University, Prague (Czech Republic). I also acted as external evaluator.
14. I am member of the assessment committee for PhD student Rune Harder Bak for the PhD School of Science, University of Copenhagen (Denmark). The thesis advisor is Prof. Henrik Granau Holm and the defence is going to be next June.

I was acting as a external evaluator of the PhD Thesis:

1. *Tilting Modules over Gorenstein rings*, David Pospisil directed by Jan Trlifaj (2011) Charles University, Prague (Czech Republic).
2. *Regular biproduct decompositions of objects*, Nicola Girardi directed by Alberto Facchini (2012) Università di Padova (Italy).

- **Miscellaneous.**

I am member of the Societat Catalana de Matemàtiques and also of the American Mathematical Society.

I was member of the evaluation committee for the competitions on:

- a position of *Catedrático de Escuela Universitaria*, Uiversidade Da Coruña. September 2003.
- three positions of *Titulares de Escuela Universitaria*, Universidad de Sevilla. January-February 2004.
- a position of *Agregat* at UAB. September 2007

After more than ten years of deep crisis there have been new openings for position. So this year 2018 I have been on the evaluation Committee for the competitions:

- CONCURS AGREGAT 2017/D/LD/CC/6 - AL17282 held at UAB this last February
- *Professore associato (II fascia) .Settore concorsuale 01/A2 Geometria e Algebra Settore Scientifico disciplinare MAT/02 Algebra* held at the Universit di Verona (Italy) also last February.

I was invited to participate at the “40 days memorial” of the decease of A. Shamsuddin. The act was at the American University of Beirut (Lebanon). I made an speech on his mathematical work. This was the year 2002.