

# 1 Mathematical Research Publications.

1. *For which Jacobi varieties is Sing  $\theta$  reducible.* Crelles J. **354** (1985), 141-149.
2. *Geometry of linear series.* Ph.D Thesis. Universitat de Barcelona. 1986.
3. *Half-canonical series on algebraic curves.* Trans. of the A.M.S. **302** (1987), 99-115.
4. *On translation invariance for  $W_d^r$ .* Crelle's J. **385** (1988), 10-23.
5. *The divisor of curves with a vanishing theta-null.* Comp. Math. **66** (1988), 15-22.
6. *Inversion of abelian integrals.* Arkiv der math. **51** (1988), 573-576.
7. *Brill-Noether for vector bundles of rank 2.* Tôhoku Math. J. **43** (1991), 123-126.
8. *Brill-Noether for stable vector bundles.* Duke Math. J. **62 N2** (1991), 385-400.
9. *Moduli spaces of (semi)stable vector bundles on tree-like curves.* Math. Ann. **290** (1991), 341-348.
10. (with C.Ciliberto and G. van der Geer) *On the number of parameters for curves whose Jacobians possess non-trivial endomorphisms.* Journal of Algebraic Geometry **1** (1992), 215-229.
11. (with P.Pirola) *Generic Torelli for  $W_d^r$ .* Math Z. **209** (1992), 53-54.
12. (with C.Ciliberto and J.Harris) *On the endomorphisms of the Jacobian of  $W_d^1(C)$  when  $\rho = 1$  and  $C$  has general moduli.* Proceedings of the Trento Conference. L.N.M. **1515**, 41-67.
13. (with L.Tu) *Theta Divisors for vector bundles.* In *Curves, Jacobians and Abelian Varieties.* Contemporary Mathematics **136**, 327-342. 1992.
14. *On the Petri map for rank 2 vector bundles.* Man. Math. **75** (1992), 375-382.
15. *Moduli spaces of vector bundles on reducible curves.* Amer. J of Math. **117 N1** (1995), 125-139.
16. *Singular locus of the Theta divisor on the moduli space of rank 2 vector bundles.* Math. Zeitschrift. **219** (1995), 477-489
17. *Curves in Grassmannians.* Proceedings of the AMS **V126 N6** (1998), 1597-1603.  
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18. *Hilbert stability versus slope stability for vector bundles of rank two.* in “Algebraic Geometry”, Lecture Notes in Pure and Applied Math. **200** editor P.Newstead, Marcel Dekker 1998, 385-397.
19. *A Riemann Singularity Theorem for generalized Brill-Noether loci.* Math Nachrichten, **196** (1998), 251-257.
20. *Compactification of the moduli space of vector bundles on singular curves: two points of view.* Collectanea Math **49**,2-3 (Volume in honor of Fernando Serrano) (1998), 527-548.
21. *Stable extensions by line bundles,* Crelle Math J.**502** (1998), 163-173. alg-geom/9705017
22. (with B. Russo) *On Lange’s conjecture,* J of Alg Geom **8**, (1999), 483-496. alg-geom/9710019
23. *On a Conjecture of Lange,* Crelle Math.J.**528**, (2000), 81-99. alg-geom/9705019
24. *Green’s Conjecture for the generic  $r$ -gonal curve of genus  $g \geq 3r - 7$ ,* Duke Math. J **111**, N**2**, 2002, 195-222.
25. *Injectivity of the symmetric product map for line bundles.* Manusc. Math. **112**(2003), 511-517 AG/0309265
26. *Brill-Noether for vector bundles of rank two and canonical determinant.* Mathematische Nachrichten **265** (2004), p.100-106 . AG/0307298
27. *Subbundles of maximal degree.* Mathematical Proceedings of the Cambridge Philosophical Society **136**,(2004), 541-545 AG/0307299
28. *Existence of vector bundles of rank two with sections.* Advances in Geometry **5** (2005), 37-47.
29. *Syzygies using vector bundles.* Transactions of the A.M.S., **359**, n **2** (2007), 897-908.
30. *Existence of coherent systems.* Int. Jour. of Math.**19** N**4**(2008), 449-454.
31. *Coherent systems of rank two with four sections.* Collectanea Math. **58**, **2** 2007, 193-198.
32. *Petri map for rank two bundles with canonical determinant.* Compositio Mathematica. **144** (2008), no. 3, 705–720.
33. (with A.Castorena) *Divisorial Components of the Petri locus for pencils* Journal of Pure and Applied Algebra **212** (2008), 1500-1508.
34. *Existence of coherent systems II.* Int. Jour. of Math. **19** n.**10** (2008), 1269-1283.

35. (with T.Gwena) *Maps between moduli spaces of vector bundles and base locus of the theta divisor.* Proc. Amer. Math. Soc. 137 (2009) 853-861. arxiv 07063953
36. (with S. Casalaina-Martin and T.Gwena) *Some examples of vector bundles in the base locus of the generalized theta divisor.* Comptes Rendus de l'Acad de Scienc.**347**, no. **3-4** (2009), 173–176 .
37. (with I.Grzegorczyk) *Brill-Noether Theory for stable vector bundles.* In "Moduli Spaces and Vector Bundles" London Math. Soc. Lecture Note Ser., 359, Cambridge Univ. Press 2009. edited by L.Brambila-Paz, O.Garcia-Prada, S.Bradlow, S.Ramanan., 29-50.
38. *Existence of vector bundles of rank two with fixed determinant and sections.* Proc. Japan Acad. Ser. A Math. Sci. 86 (2010), no. 7, 113118.
39. *Vector bundles on reducible curves and applications* in Grassmannians, moduli spaces and vector bundles, Clay Math. Proc., **14**, 169-180, Amer. Math. Soc., Providence, RI, 2011.
40. (with S. Casalaina-Martin) *Singularities of Brill-Noether loci for vector bundles on a curve.* Math. Nach. **284** no **14-15** 1846-1871 (2011).
41. *Injectivity of the Petri map for twisted Brill-Noether loci.* Manuscripta Mathematica, **145**, 2014, 389-397.
42. (with B.Osserman) *Linked alternating forms and linked symplectic Grassmannians* International Mathematics Research Notices (2014) Vol 2014, 720-744.
43. *Schemes of limit linear series for vector bundles* Tohoku Math Journal.**66** N4 2014, 554-562.
44. (with B.Osserman) *Linked symplectic forms and limit linear series in rank 2 with special determinant.* Adv. Math. 288 (2016), 576630. <http://arxiv.org/abs/1405.3314>
45. (with A.Catorena and A.Lopez-Martin) *Invariants of the Brill-Noether Curve.* To appear in Advances in Geometry. Preprint.arXiv:1403.7489 (see also arxiv
46. (with M.Chan, A Lopez-Martin, N.Pflueger) *Genera of Brill-Noether curves and staircase paths in Young tableaux.* To appear in Transactions of the American Mathematical Society (see also arxiv 150600516).
47. (with A.Catorena and A.Lopez-Martin) *Petri map for vector bundles near good bundles* Preprint. arxiv Under review
48. (with A Lopez-Martin) *Limit linear series on chains of curves and tropical divisors on chains of loops* Under review.

## 2 Other Publications.

1. *Josep Teixidor i Batlle, l'home i el matemàtic* in Quatre destacats matemàtics gironins de la dècada 1911-1920. Publicacions IEC 75-87.
2. (with A. D. Schliemann and D. W. Carraher), *Integrating Disciplinary Perspectives: The Poincaré Institute for Mathematics Education* The Mathematics Enthusiast, Vol 10, N3, July 2013.
3. (with C.Liu, A.Schliemann) *Teachers quantitative reasoning when using number lines and graphs* Preprint.