

## LIST OF PUBLICATIONS.

PHILIPPE ELLIA

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#### 1. SCIENTIFIC PUBLICATIONS IN JOURNALS WITH REFEREE.

(85) *Quasi complete intersections in  $\mathbb{P}^2$  and syzygies*, Rend. Circ. Mat. di Palermo, to appear, published on-line 01/08/2019 (<https://doi.org/10.1007/s12215-019-00437-w>)

(84) *Quasi complete intersections and global Tjurina number of plane curves*, J. of Pure and Applied Algebra, **224**, 423-431 (2020) (<https://doi.org/10.1016/j.jpaa.2019.05.014>)

(83) *On the cohomology of rank two vector bundles on  $\mathbb{P}^2$  and a theorem of Chiantini and Valabrega*, arXiv:1901.00807v1 [mathAG] (2019)

(82) *The maximal genus of space curves in the range A*, arXiv:1811-08807v1 [mathAG] (2018) [with E. Ballico]

(81) *Maximal rank of space curves in the range A*, European Journal of Mathematics, 4, 778-801 (2018) [with E. Ballico and C. Fontanari]

(80) *On jumping lines of vector bundles on  $\mathbb{P}^n$* , Ann. Univ. Ferrara, **63**, 103-112 (2017)

(79) *Spaces of matrices of constant rank and uniform vector bundles*, Linear Algebra Appl., **507**, 474-485 (2016) [with P. Menegatti]

(78) *On the Buchsbaum index of rank two vector bundles on  $\mathbb{P}^3$* , Rend. Istit. Mat. Univ. Trieste, **47**, 65-79, (2015) [with L. Gruson]

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*Date:* September 18, 2019.

- (77) *Complete intersections primitive structures on space curves*, Internat. J. Math., **26**, n.12, 1550104, 8 pp. (2015)
- (76) *A restriction theorem for stable rank two vector bundles on  $\mathbb{P}^3$* , J. of Algebra, **438**, 85-89 (2015) [with L. Gruson]
- (75) *On Ramanujan-Nagell type equations and perfect numbers*, The Fibonacci Quarterly, vol. 53, n° 1, 78-80 (2015) [with P. Menegatti]
- (74) *Self-linked curves and normal bundle*, J. of Pure and Applied Algebra, **219**, n.1, 77-82 (2015)
- (73) *Chern classes of rank two globally generated vector bundles on  $\mathbb{P}^2$* , Rend. Lincei Mat. Appl., 24, 147-163 (2013).
- (72) *On the distance between perfect numbers*, J. of Combinatorics and Number Theory, vol. 4, n.2, 105-108 (2012)
- (71) *A remark on the radical of odd perfect numbers*, The Fibonacci Quarterly, vol. 50, n.3, 231-234 (2012)
- (70) *Rank two globally generated vector bundles with  $c_1 \leq 5$* , Rend. Istit. Mat. Univ. Trieste, vol. 44, 413-422 (2012) [with L. Chiodera]
- (69) *Smooth divisors of projective hypersurfaces*, Comment. Math. Helv. 83, no. 2, 371-385 (2008) [with D. Franco and L. Gruson]
- (68) *Codimension two subvarieties and related questions*, in *Vector bundles and low codimensional subvarieties: state of the art and recent developments*, Quad. Mat. Dept. Math., Seconda Univ. Napoli, 21, 129-208 (2007)
- (67) *Global generation*, Rend. Istit. Mat. Univ. Trieste, 39, 207-215, (2007) [with A. Trambaiolli]
- (66) *On smooth surfaces in  $\mathbb{P}^4$  containing a plane curve*, Illinois J. Math., 51, n0. 2, 339-352, (2007) [with C. Folegatti]
- (65) *On subcanonical surfaces in  $\mathbb{P}^4$* , Math. Z., 251, 257-265 (2005) [with D. Franco and L. Gruson]
- (64) *On the canonical map of smooth surfaces in  $\mathbb{P}^4$* , Comm. in Algebra, 32, n.2, 707-713 (2004) [with C. Folegatti]
- (63) *Lifting invariants of projective subschemes*, International J. of Math., 14, 529-539 (2003)

- (62) *A survey on the classification of codimension two subvarieties of  $\mathbb{P}^n$* , *Le Matematiche* (special issue: Proceedings of the Conference in honour of S. Greco), vol. LV, 285-303 (2000)
- (61) *On codimension two subvarieties of  $\mathbb{P}^5$ ,  $\mathbb{P}^6$* , *J. Algebraic Geometry*, 11, 513-533 (2002) [with D. Franco]
- (60) *On smooth surfaces in projective four-space lying on quartic hypersurfaces with isolated singularities*, *Comm. in Algebra*, vol 28, n. 12, 5703-5713 (2000) [with D. Franco]
- (59) *Gonality, Clifford index and multiseccants of space curves*, *J. Pure and Applied Algebra*, 158, 25-39 (2001) [with D. Franco]
- (58) *A note on rational surfaces in  $\mathbb{P}^4$* , *J. Pure and Applied Algebra*, 152, 83-88 (2000)
- (57) *Le problème de Brill-Noether pour les fibrés de Steiner et application*, *Ann. Sc. Ecole Norm. Sup.*, 32, 835-857 (1999) [with A. Hirschowitz-L. Manivel]
- (56) *Fat points on rational normal curves*, *J. of Algebra*, 216, 600-619 (1999) [with M.V Catalisano-A. Gimigliano]
- (55) *On codimension two  $k$ -Buchsbaum subvarieties of  $\mathbb{P}^n$* , *Lect. Notes in Pure and Applied Math.*, (M. Dekker Inc.), 206, 81-92 (1999) [with A. Sarti]
- (54) *Smooth specializations of space curves: questions and examples*, *Lect. Notes in Pure and Applied Math.*, (M. Dekker Inc.), 206, 53-79 (1999) [with R. Hartshorne]
- (53) *Some classes of non general type subvarieties of codimension two in  $\mathbb{P}^n$* , *Ann. Univ. Ferrara*, XLIII, 135-156 (1997) [with A.C. De Candia]
- (52) *Double structures and normal bundle of space curves*, *J. of the London Math. Soc.*, 58, 18-26 (1998)
- (51) *On the equations defining quasi complete intersection space curves*, *Arch. der Math.*, 69, 1-6 (1997) [with V. Beorchia]
- (50) *Smooth surfaces in  $\mathbb{P}^4$  ruled in conics*, in *Algebraic Geometry: papers presented for the Europroj conferences in Catania and Barcelona*, (Ed.

P.Newstead), Lect. Notes in Pure and Applied Math., (M. Dekker Inc.) 200, 49-62 (1998) [with G. Sacchiero]

(49) *Curves of maximum genus in the range  $A$  and stick-figures*, Transactions of the American Math. Soc., vol. 349, n.11, 4589-4608 (1997) [with E. Ballico-G. Bolondi-R.M. Mirò Roig]

(48) *Curves on generic surfaces of high degree through a complete intersection in  $\mathbb{P}^3$* , Geometriae Dedicata, 65, 203-213 (1997) [with A. Dolcetti]

(47) *On subcanonical curves lying on smooth surfaces in  $\mathbb{P}^3$* , Revue Roumaine de Mathématiques Pures et Appliquées, XL, n.3-4, 289-300 (1995) [with G. Casnati-A. Dolcetti]

(46) *Some remarks on first infinitesimal neighbourhoods of space curves*, Communications in Algebra, 23, 4261-4273 (1995) [with A. Dolcetti]

(45) *On the cohomology of projective space curves*, Boll. U.M.I., (7) 9-A, 593-607 (1995)

(44) *Some vanishings for the cohomology of stable rank two vector bundles on  $\mathbb{P}^3$* , J. für die reine u. angew. Math. (Crelle's J.), 451, 1-14 (1994)

(43) *Sur la cohomologie de certains fibrés de rang deux sur  $\mathbb{P}^3$* , Ann. Univ. Ferrara, sez.VII-Sc. Mat., vol. XXXVIII, 217-227 (1992)

(42) *Normal bundle and complete intersections*, Rend. Sem. Mat. Univ. Politec. di Torino, vol. 48, 4, 553-562 (1990) [with V. Beorchia]

(41) *On the number of irreducible components of the Hilbert scheme of smooth space curves*, International J. of Math., Vol.3, No. 6, 799-807 (1992) [with A. Hirschowitz-E. Mezzetti]

(40) *Voie ouest I: génération de certains fibrés sur les espaces projectifs et application*, J. Algebraic Geometry 1, 531-547 (1992) [with A. Hirschowitz]

(39) *Sections planes et majoration du genre des courbes gauches*, in *Complex projective geometry, Proc. Trieste-Bergen*, London Math. Soc. Lect. Notes Series (Cambridge Univ. Press) 179, 157-174 (1992) [with R. Strano]

(38) *Une remarque sur la lissification des courbes gauches*, C. R. Acad. Sc. Paris, 312, 979-981, (1991) [with A. Hirschowitz]

- (37) *Sur le genre maximal des courbes gauches de degré  $d$  non sur une surface de degré  $s - 1$* , J. für die reine u. angew. Math. (Crelle's J.), 413, 78-87, (1991)
- (36) *Some connections between equations and geometric properties of curves in  $\mathbb{P}^3$* , in *Geometry and complex variables, Proc. of the IX centennial of the University of Bologna*, 177-188 (1991) M. Dekker, Inc. [with M. Idà]
- (35) *Groupes de points de  $\mathbb{P}^2$ : caractère et position uniforme*, in *Algebraic Geometry, Proc. L'Aquila 1988*, Lect. Notes in Math. 1417, 111-116 (1990) Springer-Verlag [with Ch. Peskine]
- (34) *Sur les lacunes d'Halphen*, in *Algebraic curves and projective geometry, Proc. Trento 1988*, Lect. Notes in Math. 1389, 43-65 (1989) Springer-Verlag
- (33) *On the existence of curves with maximal rank in  $\mathbb{P}^n$* , J. für die reine u. angew. Math. (Crelle's J.), 397, 1-22, (1989) [with E. Ballico]
- (32) *On projections of ruled and Veronese surfaces*, J. of Algebra, vol.121, n.2, 477-487, (1989) [with E. Ballico]
- (31) *Une remarque sur les systèmes linéaires sans points base d'hypersurfaces de l'espace projectif*, Ann. Univ. Ferrara, sez.VII-Sc. Mat., vol. XXXIV, 147-152 (1988)
- (30) *On space curves with maximal genus in the range  $A$* , Revue Roumaine de Math. pures et appliquées, XXXIII, no.3, 165-174, (1988) [with E. Ballico]
- (29) *Bonnes petites composantes des schémas de Hilbert de courbes lisses de  $\mathbb{P}^n$* , C. R. Acad. Sc. Paris, 306, 187-190, (1988) [with E. Ballico]
- (28) *Quelques remarques sur les courbes arithmétiquement Buchsbaum de l'espace projectif*, Ann. Univ. Ferrara, sez.VII-Sc. Mat., vol.XXXIII, 89-111, (1987) [with M. Fiorentini]
- (27) *The maximal rank conjecture for non special curves in  $\mathbb{P}^n$* , Math. Z., 196, 355-367, (1987) [with E. Ballico]
- (26) *On the postulation of a general projection of a curve in  $\mathbb{P}^n$* , Ann. di Mat. pura ed applicata, (IV) vol.CXLVII, 267-301, (1987) [with E. Ballico]

(25) *On the cohomology of projective curves*, in *Families of projective curves, Proceedings, Rocca di Papa 1985*, Lecture Notes in Math., Springer-Verlag, 1266, 74-83, (1987) [with I. Sols]

(24) *Beyond the maximal rank conjecture for curves in  $\mathbb{P}^3$* , in *Families of projective curves, Proceedings, Rocca di Papa 1985*, Lecture Notes in Math., Springer-Verlag, 1266, 1-23, (1987) [with E. Ballico]

(23) *Une remarque sur un théorème de Gruson- Lazarsfeld - Peskine*, Arch. Math., 48, 406-408, (1987)

(22) *D'autres composantes non réduites de  $\text{Hilb}(\mathbb{P}^3)$* , Math. Ann., 277, 433-446, (1987)

(21) *Postulation of general canonical curves in  $\mathbb{P}^n$ ,  $n \geq 4$* , Boll. U.M.I., serie VI, vol.V-D,N.1, 103-133, (1986) [with E. Ballico]

(20) *A program for space curves*, in *Algebraic varieties of small dimension, Proceedings, Torino 1985*, Rendiconti del Seminario Mat.-Univ. e Politec. di Torino, vol. speciale 1986, 25-42, (1986) [with E. Ballico]

(19) *On the hypersurfaces containing a general projective curve*, Compositio Math., 60, 85-95, (1986) [with E. Ballico]

(18) *Sur le fibré normal des courbes de  $\mathbb{P}^3$* , Seminari di Geometria 1985, Università degli Studi di Bologna, Dipartimento di Matematica, 33-52 (1986)

(17) *Points rationnels de courbes génériques de  $\mathbb{P}^3$* , Boll. U.M.I., serie VI, vol.IV-D, N.1, 167-172, (1985)

(16) *On the postulation of a general projection of a curve in  $\mathbb{P}^3$* , Ann. di Mat. pura ed applicata, (IV) vol.CXLII, 15-48, (1985) [with E. Ballico]

(15) *On the postulation of many disjoint rational curves in  $\mathbb{P}^n$ ,  $n \geq 4$* , Boll.U.M.I.(6), 4-B, 585-599, (1985) [with E. Ballico]

(14) *The maximal rank conjecture for non special curves in  $\mathbb{P}^3$* , Invent. Math., 79, 541-555, (1985) [with E. Ballico]

(13) *On postulation of curves in  $\mathbb{P}^4$* , Math. Z. 188, 215-223, (1985) [with E. Ballico]

(12) *Défaut de postulation et singularités du schéma de Hilbert*, Ann. Univ. Ferrara, sez.VII, vol.XXX, 185-198, (1984) [with M. Fiorentini]

- (11) *On postulation of curves: embeddings by complete linear systems*, Arch. Math., 43, 244-249, (1984) [with E. Ballico]
- (10) *Sur la postulation des courbes de  $\mathbb{P}^n$  et de leurs projections*, C.R. Acad. Sc. Paris, 299, 237-240, (1984) [with E. Ballico]
- (9) *Some more examples of curves in  $\mathbb{P}^3$  with stable normal bundle*, J. für die reine u. angew. Math. (Crelle's J.), 350, 87-93, (1984) [with E. Ballico]
- (8) *Exemples de courbes de  $\mathbb{P}^3$  à fibré normal semi-stable, stable*, Math. Ann., 264, 389-396, (1983)
- (7) *Faisceaux réflexifs stables: le spectre n'est pas toujours constant*, C. R. Acad. Sc. Paris, 296, 55-58, (1983)
- (6) *Generic curves of small genus in  $\mathbb{P}^3$  are of maximal rank*, Math. Ann., 264, 211-225, (1983) [with E. Ballico]
- (5) *On degeneration of projective curves*, Algebraic geometry-Open problems, Proceedings, Ravello, 1982, Lecture Notes in Math.(Springer-Verlag), 997, 1-15, (1983) [with E. Ballico]
- (4) *Fibrés uniformes de rang cinq sur  $\mathbb{P}^3$* , Bull. Soc. Math. France, 111, 59-87, (1983) [with E. Ballico]
- (3) *Fibrés homogènes sur  $\mathbb{P}^n$* , C. R. Acad. Sc. Paris, 294, 403-406, (1982) [with E. Ballico]
- (2) *Sur les fibrés uniformes de rang  $n + 1$  sur  $\mathbb{P}^n$* , Mémoire Soc. Math. France, nouv. série, 7, 1-60, (1982)
- (1) *Des fibrés uniformes non homogènes et indécomposables de rang  $2n + 1$  sur  $\mathbb{P}^n$* , J. für die reine u. angew. Math. (Crelle's J.), 321, 113-119, (1981)

## 2. OTHER PUBLICATIONS.

- (5) *Reminiscences*, Ann. Univ. Ferrara, **63**, 3-8 (2017) [with L. Badescu and S. Kleiman]
- (4) *On smooth divisors of a projective hypersurface*, arXiv:math.AG/0406497 (unpublished, see (69)) (2004) [with D. Franco]

(3) *Java e matematica on-line: esercizi interattivi, ad uso multiplo, con verifica a posteriori*, in *Proceedings of the conference Didamatica 2001, Informatica per la didattica, lavori scientifici*, pp. 232-237 Ed. Laterza (2001)

(2) *Appunti di Geometria I*, I-VIII, 1- 302, Pitagora Editrice, Bologna (1997)

(1) *Una breve introduzione allo studio dei fibrati vettoriali sugli spazi proiettivi*, in *Ein, L.-Ellia, Ph.-Zak, F.: Projective varieties, linear systems and vector bundles*, Istituto Nazionale di Alta Matematica (Aracne Editrice), 55-89, (1994)

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