

Hélène Esnault

List of publications.

Thèse de Doctorat de 3^o cycle :

Singularités rationnelles et groupes algébriques. Université Paris VII, October 1976

Thèse de Doctorat d'Etat :

corresponds to the publications 3 - 6, Université Paris VII, Feb. 1984

Publications:

1. Sur l'identification de singularités apparaissant dans des groupes algébriques complexes. *Publ. Math. de l'Université Paris VII*, **7** (1979), 31 - 59 (résumé of the "Thèse de 3^o cycle").
2. Classification des variétés de dimension 3 et plus. Séminaire Bourbaki, exp 568, Fév 81. *Springer Lect. Notes in Math.* **901**, 111 - 131, (survey).
3. Fibre de Milnor d'un cône sur une courbe plane singulière. *Inventiones math.* **68** (1982), 477 - 496.
4. (with E. Viehweg) Revêtement cycliques. Algebraic Threefolds, Proc. Varenna 1981, *Springer Lect. Notes in Math.* **947**, 241 - 250, (survey).
5. (with E. Viehweg) Sur une minoration du degré d'hypersurfaces s' annulant en certain points. *Math. Ann.* **263** (1983), 75 - 86.
6. (with E. Viehweg) Dyson's lemma for polynomials in several variables (and the theorem of Roth). *Inventiones math.* **78** (1984), 445 - 490.
7. (with E. Viehweg) Two dimensional quotient singularities deform to quotient singularities. *Math. Ann.* **271** (1985), 439 - 449.
8. Reflexive modules on quotient surface singularities. *Journ. reine angew. Math.* **362** (1985), 63 - 71.
9. (with E. Viehweg) Revêtements cycliques II. Proc. Algebraic Geometry, La Rabida 1984, *Hermann, Travaux en cours* **23** (1987), 81 - 96.
10. (with H. Knörrer) Reflexive modules over rational double points. *Math. Ann.* **272** (1985), 545 - 548.
11. (with E. Viehweg) Logarithmic De Rham complexes and vanishing theorems. *Inventiones math.* **86** (1986), 161 - 194.
12. Characteristic classes of flat bundles. *Topology* **27** (1988), 323 - 352.

13. (with E. Viehweg) Deligne-Beilinson cohomology. In: Beilinson's Conjectures on Special Values of L-Functions (Ed.: Rapoport, Schappacher, Schneider). *Perspectives in Math.* **4**, Academic Press (1988), 43 - 91.
14. (with E. Viehweg) A remark on a non-vanishing theorem of P. Deligne and G.T. Mostow. *Journ. reine angew. Math.* **381** (1987), 211 - 213.
15. (with E. Viehweg) Vanishing and non-vanishing theorems. Proc. Hodge Theory, Luminy 1987 (Ed.: Barlet, Elzein, Esnault, Verdier, Viehweg). *Astérisque* **179-180** (1989), 97 - 112.
16. On the Loday symbol in the Deligne-Beilinson cohomology. *K-Theory* **3** (1989), 1 - 28.
17. A note on the cycle map. *Journal reine angew. Math.* **411** (1990), 51 - 65.
18. (with E. Viehweg) Effective bounds for semipositive sheaves and the height of points on curves over complex function fields. *Compositio math.*, **76** (1990), 69 - 85.
19. A regulator map on singular varieties. *Math. Ann.* **286** (1990), 169 - 191.
20. Une remarque sur la cohomologie du faisceau de Zariski de la K -théorie de Milnor sur une variété lisse complexe. *Math. Zeitschrift* **205** (1990), 373 - 378.
21. Some examples of computation of a regulator map on singular varieties. *Contemporary Mathematics*, **131** (1992) (Part 3), 399-417 , Proc. of the "A.I. Maltsev Conf." on Algebra and Analysis, Novosibirsk 1989.
22. Hodge type of subvarieties of P^n of small degrees. *Math. Ann.* **288** (1990), 549 - 551.
23. (with E. Viehweg) Ample sheaves on moduli schemes. "Proceedings of the Conference in Algebraic and Analytic Geometry", Tokyo, (1990), *ICM 90, Lecture Notes*, 53 - 80.
24. (with J. Seade and E. Viehweg) Characteristic divisors on complex manifolds. *Journ. reine angew. Math.* **424** (1992), 17-30
25. (with V. Srinivas) Chern classes of vector bundles with holomorphic connections on a complete smooth complex variety. *Journal of Diff. Geometry*, **36** (1992), 257-267.
26. (with V. Schechtman and E. Viehweg) Cohomology of local systems on the complement of hyperplanes. *Inventiones math.* **109** (1992), 557-561. Erratum: *Inventiones math.* **112** (1993), 447.
27. (with M. V. Nori and V. Srinivas) Hodge type of projective varieties of low degree. *Math. Ann.* **293** (1992), 1-6.
28. (with E. Viehweg) Lectures on Vanishing Theorems. Book. *DMV-Seminar Band* **20**, Birkhäuser, 164 pages.

29. (with B. Kahn and E. Viehweg) Coverings of odd degree and Stiefel-Whitney classes. *Journ. reine angew. Math.* **441** (1993), 145-188.
30. (with E. Viehweg) Higher Kodaira-Spencer classes. *Math. Ann.* **299** (1994), 491-527.
31. Characteristic classes of flat bundles, II. *K-Theory* **6** (1992), 45-56.
32. (with M. Levine) Surjectivity of cycle maps. In Journées de Géométrie Algébrique d'Orsay, Juillet 1992, *Astérisque* **218** (1993), 203-226.
33. (with V. Srinivas and E. Viehweg) Decomposability of Chow groups implies decomposability of cohomology. In Journées de Géométrie Algébrique d'Orsay, Juillet 1992, *Astérisque* **218** (1993), 227-242.
34. (with K. Paranjape) Remarks on absolute de Rham and absolute Hodge cycles. *C. R. Acad. Sc. Paris*, t. **319**, Série I (1994) 67-72.
35. Coniveau of classes of flat bundles trivialized on a smooth covering of a complex manifold. *K-Theory* **8** (1994), 483-488
36. (with K. Corlette) Classes of local systems of \mathbb{Q} hermitian vector spaces. Preprint 1994, 6 pages, appendix to "Riemann-Roch for flat bundles" by J.-M. Bismut, *Chinese Annals of Mathematics* **26B:1** (2005), 15-44.
37. (with S. Bloch) The coniveau filtration and non-divisibility for algebraic cycles. *Math. Ann.* **304** (1996), 303-314.
38. (with M. Levine and E. Viehweg) Chow groups on projective varieties of very small degree. *Duke Math. J.* **87** (1997), 29-58.
39. (with S. Bloch) Algebraic Chern-Simons theory. *Am. J. of Mathematics* **119** (1997), 903-952.
40. Recent developments on characteristic classes of flat bundles on complex algebraic manifolds. *Jber. d. Dt. Math.-Verein.* **98** (1996), 182-191, (survey).
41. (with B. Kahn, M. Levine, E. Viehweg) The Arason invariant and mod 2 algebraic cycles. *Journal of the American Mathematical Society* **11** (1998), 73-118.
42. Algebraic Differential Characters. In Regulators in Analysis, Geometry and Number Theory, *Progress in Mathematics*, Birkhäuser Verlag, **171** (2000), 89-117.
43. A remark on an algebraic Riemann-Roch formula for flat bundles. *K-Theory* **13** (1998), 61-68.
44. (with V. Srinivas, E. Viehweg) The universal regular quotient of the Chow group of 0-cycles on a singular projective variety. *Inventiones math.* **135** (1999), 595-664.
45. (with E. Viehweg) Germs of de Rham cohomology classes which vanish at the generic point. *C. R. Acad. Sci. Paris* **326** (1998) 857-862.

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47. (with S. Bloch) A Riemann-Roch theorem for flat bundles, with values in the algebraic Chern-Simons theory. *Annals of Mathematics* **151** (2000), 1-46.
48. (with E. Viehweg) Semistable bundles on curves and irreducible representations of the fundamental group. Algebraic Geometry: Hirzebruch 70, *Contemporary Mathematics* **241** (1999), 129-141.
49. (with S. Bloch) Lectures on Algebro-Geometric Chern-Weil and Cheeger-Chern-Simons Theory for Vector Bundles. In Arithmetic and Geometry of Algebraic Cycles. *Nato Science Series* **548** (2000), 3-29.
50. (with S. Bloch) Gauß-Manin determinants of rank 1 irregular connection on curves. *Math. Ann.* **321** (2001), 15-87, with an addendum: the letter of P. Deligne to J.-P. Serre (Feb. 74) on ϵ -factors, 65-87.
51. (with M. Levine) The Steinberg curve. *Am. J. of Mathematics* **122** (2000), 783-804.
52. (with I.H. Tsai) Determinant bundle in a family of curves, after A. Beilinson and V. Schechtman. *Comm. Math. Phys.* **211** (2000), 359-363.
53. (with S. Bloch) Relatives Algebraic Characters. In Motives, Polylogarithms and Hodge Theory, *International Press Lecture Series*, vol. **3**, part I (2002), 47-75.
54. (with S. Bloch) Gauß-Manin determinant connections and periods for irregular connections. *Geom. funct. anal. Special Volume-GAFA 2000*, 1-31, Birkhäuser Verlag.
55. (with S. Bloch) A formula for Gauß-Manin determinants. Preprint 2000, 37 pages.
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57. (with C. Hertling) Semistable bundles and reducible representations of the fundamental group. *International Journal of Mathematics* **12**, no7 (2001), 847-855.
58. (with A. Beilinson and S. Bloch) ϵ -factors for Gauß- Manin determinants. *Moscow Mathematical Journal*, **2** no 3 (2002), 1-56.
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60. (with E. Viehweg) Chern classes of Gauß-Manin bundles of weight 1 vanish. *K-Theory* **26** (2002), 287-305.

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63. (with S. Bloch) The additive dilogarithm. *Documenta Math.* Extra Volume: Kazuya Kato's Fiftieth Birthday (2003), 131-155.
64. (with D. Wan) Hodge type of the exotic cohomology of complete intersections. *C. R. Acad. Sci. Paris, Ser. I* **336** (2003), 153-157.
65. (with S. Bloch) Congruences for the number of rational points, Hodge type and motivic conjectures for Fano varieties. *Cubo A Mathematical Journal*, **05**, no 03 (2003), 251-262.
66. (with S. Bloch and M. Levine) Decomposition of the diagonal and eigenvalues of Frobenius for Fano hypersurfaces. *Am. J. of Mathematics*, **127** no1 (2005), 193-207.
67. Eigenvalues of Frobenius acting on the ℓ -adic cohomology of complete intersections of low degree. *C. R. Acad. Sci. Paris, Ser. I* **337** (2003), 317-320.
68. (with N. Katz) Cohomological divisibility and point count divisibility. *Compositio math.* **141** 01 (2005), 93-100.
69. (with A. Beilinson, S. Bloch, P. Deligne) Periods for irregular connections on curves. Preprint 2003, 59 pages.
70. Some elementary theorems about divisibility of 0-cycles on abelian varieties defined over finite fields. *International Mathematics Research Notices* **19** (2004), 929-935.
71. (with S. Bloch) Local Fourier transforms and rigidity for D -modules. *Asian Journal of Mathematics*, special issue dedicated to Armand Borel, Vol. **8**, No 4 (2004), 587-606.
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73. Deligne's integrality theorem in unequal characteristic and rational points over finite fields. *Annals of Mathematics* **164** (2006), 715-730.
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75. Variation of Artin's vanishing theorem. *Advances of Mathematics* **198** (2005) issue 2, 435-438, special issue dedicated to M. Artin.
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77. A remark on higher congruences for the number of rational points of varieties defined over a finite field. Preprint 2005, 6 pages.
78. (with Phùng Hô Hai) The Gauß-Manin connection and Tannaka duality. *International Mathematics Research Notices* **93878** (2006), 1-35.
79. (with S. Bloch and D. Kreimer) On motives attached to graph polynomials. *Comm. Math. Phys.* **267** no1 (2006), 181-225.
80. (with P. Berthelot and S. Bloch) On Witt vector cohomology for singular varieties. *Compositio math.* **143** (2007), 363-392.
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82. (with M. Blickle) Rational singularities and rational points. *Pure Appl. Math. Q.* **4** (2008), no. 3, part 2, 729-741.
83. (with Phùng Hô Hai and X. Sun) On Nori's Fundamental Group Scheme. *Progress in Mathematics*, Vol. **265** (2007), 377-398.
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86. (with Phùng Hô Hai) Packets in Grothendieck's Section Conjecture. *Advances in Mathematics* **218** (2008), 395-416.
87. Coniveau over p -adic fields and points over finite fields. *C. R. Acad. Sci. Paris, Ser. I* **345** (2007) 73-76.
88. (with C. Xu) Congruence for rational points over finite fields and coniveau over local fields. *Transactions of the AMS* **361** (2009), 2679-2688.
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91. Algebraic differential characters of flat connections with nilpotent residues. In *Algebraic Topology*, Abel Prisen **4** (2007), *Springer Verlag*, 83-94.
92. (with O. Wittenberg) Remarks on the cycle classes of sections of the arithmetic fundamental group. *Moscow Mathematical Journal* **9** no3 (2009), 1-17.

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94. (with Phùng Hô Hai) Two small remarks on Nori fundamental group scheme. *Advanced Studies in Pure Mathematics* **60** (2010), 237–243.
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99. (with A. Hogadi) On the algebraic fundamental group of smooth varieties in characteristic $p > 0$. *Transactions of the AMS* **364** (2012), 2429–2442.
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101. (with J. Nicaise) Finite group actions, rational fixed points and weak Néron models. *Pure Applied Math. Q.* **7:4** in the *Special issue in memory of Eckart Viehweg* (2011), 1209–1240.
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103. (with M. Kerz) Notes on Deligne’s letter to Drinfeld dated Marc 5, 2007. Preprint 2011, 19 pages. Not for publication.
104. (with A. Langer) On a positive equicharacteristic variant of the p -curvature conjecture. Preprint 2011, 32 pages.
105. (with X. Sun) Stratified bundles and étale fundamental group. Preprint 2011, 18 pages. Appears in *Ann. Sc. Norm. Pisa*.
106. (with S. Bloch and M. Kerz) p -adic deformation of algebraic cycle classes. Preprint 2012, 36 pages.
107. On flat bundles in characteristic 0 and $p > 0$. *ECM* contribution, 2012, 13 pages.
108. (with M. Levine and O. Wittenberg) Index of varieties over Henselian fields and Euler characteristic of coherent sheaves. Preprint 2012, 20 pages.
109. (with M. Kerz) A finiteness theorem for Galois representations of function fields over finite fields (after Deligne). Preprint 2012, 37 pages.