

CURRICULUM VITAE, JULY 2026

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Born: September 17th, 1973, in Millau (France). Citizenship: French.

Education:

- 1991 – *Baccalauréat* – Toulouse.
- June 1996 – *Master in Pure Mathematics* – Université de Toulouse 3
- June 1999 – *Thèse de doctorat* (Ph. D.) – Université de Toulouse 3
- May 2003 – *Habilitation à diriger les recherches* (Habilitation thesis) – Université de Nice.

Academic positions

- 1999-2001: Postdoc at Max Planck Institute für Mathematik in Bonn.
- 2001-2003: *Chargé de recherches au C.N.R.S.* (permanent research position) in Laboratoire J.A. Dieudonné (Nice).
- 2003-2009: *Chargé de recherches au C.N.R.S.* (permanent research position) in Laboratoire Emile Picard (Toulouse).
- 2009-2014: *Directeur de recherches au C.N.R.S.* (senior permanent research position) in Institut de Mathématiques et de Modélisation de Montpellier.
- Since January 2015: *Directeur de recherches au C.N.R.S.* (senior permanent research position) in Institut de Mathématiques de Toulouse.

Research interests: Algebraic Geometry, Algebraic Topology, Category Theory.

Some distinguished lectures:

- *Ramanujan Lectures*, Bengaluru, July 2026.
- *Les milles et une pages mathématiques d’Alexandre Grothendieck*, Bibliothèque Nationale de France, January 2025.
- *Clay research conference*, plenary talk, Oxford, September 2017.
- *Premier congrès de la Société Mathématique de France*, plenary talk, Tours, June 2016.
- *International Congress of Mathematicians*, 45min lecture (section 4: *Algebraic and Complex Geometry*), Seoul, August 2014.

- *Algèbre, Géométrie et Physique : une conférence en l'honneur de Maxim Kontsevich*, IHES, Paris June 2014.
- *Samuel Eilenberg Centenary Conference*, plenary lecture, Warsaw, July 2013.
- *Derived Algebraic Geometry and Quantization*, "Whittemore Lectures", Yale University December 2012.
- *Non-Abelian Hodge theory*, "Aspects de la géométrie algébrique: la prospérité mathématique de Grothendieck", IHES - Paris, January 2009.

Grants and distinctions:

- Laureat of the *médaille d'argent du CRNS* 2023.
- Laureate of the *Sophie Germain Prize* in 2019, from the French academy of science.
- *NEDAG*: "New Directions in Derived Algebraic Geometry", ERC advanced grant (2017-2022).
- *DAG-ARTS*: Local coordinator, ANR grant (coordinator M. Porta).
- *CatAG*: member of "Categorification in Algebraic geometry", ANR grant (P.I. Etienne Mann and Michel Vaquié).
- *DAGIT*: Research grant in context of labex CIMI (2015-2018).
- *HODAG*: I have been the main coordinator of the grant "HODAG" (Hodge theory and derived algebraic geometry), ANR-09-BLAN-0151 (second coordinator C. Simpson), for the period: 2009-2013.

Administration:

- *Editorial works*: Editor for *Advances in Math* (2002-2012), *Journal of the EMS* (2014-2018), *Annales de Toulouse* (2015-2019).
- *Research administration*: 2010-2014: Director of the pure math section of the *Institut de Mathématiques et de Modélisations de Montpellier*. 2016-2017: member of the *comité national du CNRS, section 41*. 2016-2018: vice director of the *Institut de Mathématiques de Toulouse*.

PhD Students:

- M. Anel: thesis defended in June 2006 (Toulouse).
- F. Marty: thesis defended in July 2009 (Toulouse).
- J. Wallbridge: thesis defended in July (Toulouse).
- A. Blanc: thesis defended in July 2013 (Montpellier).
- M. Roballo: thesis defended in July 2014 (Montpellier).
- B. Hennion: thesis defended in July 2015 (Montpellier).
- S. Bach: thesis defended in July 2017 (Montpellier).
- J. Antonio: thesis defended in July 2019 (Toulouse).
- M. Pippi: thesis defended in July 2020 (Toulouse).
- L. Monier: thesis defended in July 2021 (Toulouse).
- E. Dimitriadis: thesis defended December 2022 (Toulouse).
- Jiaqi Fu: thesis defended June 2025 (Toulouse).
- Victor Alfieri: thesis defended June 2026 (Toulouse).

Postdoc Students:

- Dario Beraldo (2018-2020).
- Tasos Moulinos (2018-2022).
- Niels Feld (2021-2023).
- Edith Hübner (2026-)

Publications:

REFERENCES

- [1] *Théorèmes de Riemann-Roch pour les champs de Deligne-Mumford*. *K-theory* **18**, 1999, No. 1, 33-76.
- [2] *On motives for Deligne-Mumford stacks*. *Internat. Math. Res. Notices* **2000**, No. 17, 909-928.
- [3] *Vers une interprétation galoisienne de la théorie de l'homotopie*. *Cah. Topol. Géom. Différ. Catég.* **43** (2002), no. 4, 257-312.
- [4] (joint with G. Vezzosi) *A remark on K-theory and S-categories*. *Topology* **43** (2004), no. 4, 765-791.
- [5] (joint with G. Vezzosi) *From HAG to DAG: derived moduli stacks*. *Axiomatic, enriched and motivic homotopy theory*, 173 - 216, NATO Sci. Ser. II Math. Phys. Chem., 131, Kluwer Acad. Publ., Dordrecht, 2004.
- [6] (joint with J. Kock) *Simplicial localization of monoïdal structures and a non linear version of Deligne's conjecture*. *Compos. Math.* **141** (2005), no. 1, 253-261.
- [7] (joint with G. Vezzosi) *Homotopical Algebraic Geometry I: topos theory*. *Adv. Math.* **193** (2005), no. 2, 257-372.
- [8] *Vers une axiomatisation de la théorie des catégories supérieures*. *K-Theory* **34** (2005), no. 3, 233-263.
- [9] *Champs affines*. *Selecta Math. (N.S.)* **12** (2006), no. 1, 39-135.
- [10] *Derived Hall algebras*. *Duke Math. J.* **135** (2006), no. 3, 587-615.
- [11] *The homotopy theory of dg-categories and derived Morita theory*. *Invent. Math.* **167** (2007), no. 3, 615-667.
- [12] (joint with Vezzosi) *Brave new algebraic geometry*. *Elliptic cohomology*, 325-359, London Math. Soc. Lecture Note Ser., **342**, Cambridge Univ. Press, Cambridge, 2007.
- [13] (joint with M. Vaquié) *Moduli of objects in dg-categories*. *Ann. Sci. Ecole Norm. Sup. (4)* **40** (2007), no. 3, 387-444.
- [14] (joint with G. Vezzosi) *Homotopical algebraic geometry II: Geometric stacks and applications*. *Mem. Amer. Math. Soc.* **193** (2008), no. 902, x+224 pp.
- [15] (joint with L. Katzarkov et T. Pantev) *Schematic homotopy types and non abelian Hodge theory*, *Compos. Math.* **144** (2008), no. 3, 582-632.
- [16] *Anneaux de définition des dg-algèbres propres et lisses*. *Bull. Lond. Math. Soc.* **40** (2008), no. 4, 642-650.
- [17] (avec M. Vaquié) *Algébrisation des variétés analytiques complexes et catégories dérivées*. *Math. Ann.* **342** (2008), no. 4, 789-831.
- [18] *Finitude homotopique des dg-algèbres propres et lisses*. *Proc. Lond. Math. Soc. (3)* **98** (2009), no. 1, 217-240.
- [19] (join with M. Anel) *Dénombrabilité des classes d'équivalences dérivées des variétés algébriques*. *J. Algebraic Geom.* **18** (2009), no. 2, 257-277.
- [20] *Higher and derived stacks: a global overview*. *Algebraic geometry - Seattle 2005*. Part 1, 435 - 487, *Proc. Sympos. Pure Math.*, **80**, Part 1, Amer. Math. Soc., Providence, RI, 2009.
- [21] (Joint with L. Katzarkov et T. Pantev) *Algebraic and topological aspects of the schematization functor*. *Compos. Math.* **145** (2009), no. **3**, 633-686.
- [22] (Joint with M. Vaquié) *Under Spec $\mathbb{Z}$* . *J. K-Theory* **3** (2009), no. 3, 437-500.
- [23] (Joint with G. Vezzosi) *Note of Chern character, loop spaces and derived algebraic geometry*. *Algebraic topology*, 331-354, *Abel Symp.*, 4, Springer, Berlin, 2009.
- [24] *Simplicial presheaves and derived algebraic geometry*. *Simplicial methods for operads and algebraic geometry*, 119-186, *Adv. Courses Math. CRM Barcelona*, Birkhäuser/Springer Basel AG, Basel, 2010.
- [25] *Lectures on dg-categories*. *Topics in algebraic and topological K-theory*, 243-302, *Lecture Notes in Math.*, **2008**, Springer, Berlin, 2011.
- [26] *Descente fidèlement plate pour les n-champs d'Artin*. *Compos. Math.* **147** (2011), no. 5, 1382-1412.
- [27] (Joint with G. Vezzosi) *Algèbres simpliciales S^1 -équivariantes, théorie de de Rham et théorèmes HKR multiplicatifs*. *Compos. Math.* **147** (2011), no. 6, 1979-2000.
- [28] *Derived Azumaya algebras and generators for twisted derived categories*. *Invent. Math.* **189** (2012), no. 3, 581-652.

- [29] (Joint with T. Schürg et G. Vezzosi) *Reduced obstruction theory for the stack of stable maps to a $K3$ -surface via derived algebraic geometry*. J. Reine Angew. Math. **702** (2015), 1–40.
- [30] (Joint with T. Pantev, G. Vezzosi et M. Vaquié) *Shifted symplectic structures*. Publ. Math. Inst. Hautes Études Sci. **117** (2013), 271–328.
- [31] (Joint with G. Vezzosi) *Infinie-catégories monoïdales rigides et caractères de Chern*. To appear in Selecta.
- [32] *Derived Algebraic Geometry*. EMS Surv. Math. Sci. **1** (2014), no. 2, 153–245.
- [33] *Derived Algebraic Geometry and Deformation Quantization*. Proceedings of the ICM-2014.
- [34] *Problèmes de modules formels*. Séminaire Bourbaki. Vol. 2015/2016. Exposés 1104–1119. Astérisque No. **390** (2017), Exp. No. 1111, 199–244.
- [35] (Joint with Vaquié) *Systèmes de points dans les dg-catégories saturées*. Ann. Fac. Sci. Toulouse Math. (6) **25** (2016), no. 2–3, 583–618.
- [36] (Joint with Calaque, Pantev, Vaquié and Vezzosi) *Shifted Poisson Structures*, J. Topol. **10** (2017), no. 2, 483–584.
- [37] (Joint with Vezzosi) *Géométrie non-commutative, formule des traces et conducteur de Bloch*. Actes du 1er Congrès National de la SMF—Tours, 2016, 77–107, Sémin. Congr., 31, Soc. Math. France, Paris, 2017.
- [38] (Joint with Blanc, Robalo and Vezzosi) *Matrix factorizations and vanishing cycles*. J. Ec. polytech. Math. **5** (2018), 651–747.
- [39] (Joint with Vezzosi) *The l -adic trace formula for dg-categories and Bloch’s conductor conjecture*. Boll. Unione Mat. Ital. **12** (2019), no. 1–2, 3–17.
- [40] *Le problème de la schématisation de Grothendieck revisité* EPIGA volume 4 (2020), Article no. 14.
- [41] (Joint with Pantev) *Poisson geometry of the moduli of local systems on smooth varieties*. Publ. Res. Inst. Math. Sci. **57** (2021), no. [3–4], 959–991.
- [42] (Joint with Vezzosi) *Trace and Künneth formulas for singularity categories and applications*. Compos. Math. **158** (2022), no. 3, 483–528.
- [43] (Joint with Pantev) *Moduli of connections on smooth varieties*. Algebr. Geom. **9** (2022), no. 3, 266–310.
- [44] (Joint with Moulinos and Robalo) *A universal HKR theorem*. Geom. Topol. **26** (2022), no. 2, 777–874.
- [45] (Joint with Vezzosi) *Algebraic foliations and derived geometry: The Riemann-Hilbert correspondence*. Selecta Math. (N.S.) **29** (2023), no. 1, Paper No. 5, 47 pp.
- [46] *Classes caractéristiques des schémas feuilletés*. Preprint arXiv:2008.10489
- [47] (Joint with Vezzosi) *Algebraic foliations and derived geometry II: the Grothendieck-Riemann-Roch theorem*. Preprint arXiv:2007.09251
- [47] (Joint with Vezzosi) *Foliations and stable maps* Current developments in Hodge theory. Proceedings of Hodge theory at IMSA., Mar 2021, Miami, United States
- [48] *Generalized local jacobians and commutative group stacks*. to appear in Annales de la Faculté de Sciences de Toulouse.
- [49] *Grothendieck mathématicien. Le temps des réflexions 1973-1991* Research exhibition 2024. Booklet available at <https://hal.science/hal-04901028v1>
- [50] *Derived foliations*. Book. Preprint arXiv:2305.08212