List of Publications

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See also https://www.math.uzh.ch/index.php?id=people&key1=116
Google Scholar ID: https://scholar.google.ch/citations?hl=en&user=NoycPFMAAAAJ

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1. Theses

(1) A. S. Cattaneo, *Studio delle proprietà di localizzazione su catene quasiperiodiche mediante gruppo di rinormalizzazione nello spazio reale*, "Laurea" Thesis, Milan University, 1991, 116 pages. (Advisor: Prof. L. Girardello): http://www.math.uzh.ch/cattaneo/tesil.pdf

(2) A. S. Cattaneo, *Teorie topologiche di tipo BF ed invarianti dei nodi*, Ph. D. Thesis, Milan University, 1995, 113 pages. (Advisor: Prof. M. Martellini): http://www.math.uzh.ch/cattaneo/tesi.pdf

2. Papers

(3) F. Belgiorno, A. S. Cattaneo, F. Fucito, and M. Martellini, "Quantum models of black hole evaporation," in *International Workshop on String Theory, Quantum Gravity and the Unification of Fundamental Interactions* (World Scientific Publishing Co. Pte. Ltd., Singapore, 1993), pp. 19–27.

(4) F. Belgiorno, A. S. Cattaneo, F. Fucito, and M. Martellini, "A conformal affine Toda model of 2d black holes: A quantum study of the evaporation end point," Mod. Phys. Lett. **A 8**, 2593–2605 (1993).

(5) F. Belgiorno, A. S. Cattaneo, F. Fucito, and M. Martellini, "Conformal affine Toda model of two-dimensional black holes: The end-point state and the S matrix," Phys. Rev. **D 48**, 2660–2669 (1993).

(6) A. S. Cattaneo, A. Gamba, and M. Martellini, "Moduli spaces of curves with homology chains and $c = 1$ matrix models," Phys. Lett. **B 327**, 221–225 (1994).

(7) A. S. Cattaneo, A. Gamba, and I. V. Kolokolov, "Statistics of the one-electron current in a one-dimensional mesoscopic ring at arbitrary magnetic fields," J. Stat. Phys. **76**, 1065–1074 (1994).

(8) A. S. Cattaneo, A. Gamba, I. V. Kolokolov, and M. Martellini, "1D-disordered conductor with loops immersed in a magnetic field," Phys. Lett. **A 190**, 206–212 (1994).

(9) F. Belgiorno and A. S. Cattaneo, "Black holes and cosmological constant in bosonic string theory: Some remarks," Int. J. Mod. Phys. **A 10**, 527–539 (1995).
(10) A. S. Cattaneo, P. Cotta-Ramusino, and M. Martellini, "Three-dimensional BF theories and the Alexander–Conway invariant of knots," Nucl. Phys. **B 346**, 355–382 (1995).
(11) A. S. Cattaneo, P. Cotta-Ramusino, J. Fröhlich, and M. Martellini, "Topological BF theories in 3 and 4 dimensions," J. Math. Phys. **36**, 6137–6160 (1995).
(12) A. S. Cattaneo, P. Cotta-Ramusino, A. Gamba, and M. Martellini, "The Donaldson–Witten invariants in pure 4D-QCD with order and disorder 't Hooft-like operators," Phys. Lett. **B 355**, 245–254 (1995).
(13) A. S. Cattaneo, "Cabled Wilson loops in BF theories," J. Math. Phys. **37**, 3684–3703 (1996).
(14) A. S. Cattaneo, "Abelian BF theories and knot invariants," Commun. Math. Phys. **189**, 795–828 (1997).
(15) A. S. Cattaneo, P. Cotta-Ramusino, and M. Rinaldi, "BRST symmetries for the tangent gauge group," J. Math. Phys. **39**, 1316–1339 (1998).
(16) R. Bott and A. S. Cattaneo, "Integral invariants of 3-manifolds," J. Diff. Geom. **48**, 91–133 (1998). Reprinted in *Raoul Bott: Collected Papers*, Tu L. (eds), Contemporary Mathematicians, Birkhäuser, 2017, 381–425.
(17) A. S. Cattaneo, P. Cotta-Ramusino, F. Fucito, M. Martellini, M. Rinaldi, A. Tanzini, and M. Zeni, "Four-dimensional Yang–Mills theory as a deformation of topological BF theory," Commun. Math. Phys. **197**, 571–621 (1998).
(18) A. S. Cattaneo, "Configuration space integrals and invariants for 3-manifolds and knots," Cont. Math. **233**, 153–165 (1999).
(19) A. S. Cattaneo, P. Cotta-Ramusino, and M. Rinaldi, "Loop and path spaces and four-dimensional BF theories: Connections, holonomies and observables," Commun. Math. Phys. **204**, 493–524 (1999).
(20) R. Bott and A. S. Cattaneo, "Integral invariants of 3-manifolds. II," J. Diff. Geom. **53**, 1–13 (1999). Reprinted in *Raoul Bott: Collected Papers*, Tu L. (eds), Contemporary Mathematicians, Birkhäuser, 2017, 463–477.
(21) A. S. Cattaneo and G. Felder, "A path integral approach to the Kontsevich quantization formula," Commun. Math. Phys. **212**, 591–611 (2000).
(22) A. S. Cattaneo, P. Cotta-Ramusino, and C. A. Rossi, "Loop observables for BF theories in any dimension and the cohomology of knots," Lett. Math. Phys. **51**, 301–316 (2000).
(23) A. S. Cattaneo and G. Felder, "Poisson sigma models and deformation quantization," Mod. Phys. Lett. **A 16**, 179–190 (2001).

(24) A. S. Cattaneo and G. Felder, "On the AKSZ formulation of the Poisson sigma model," Lett. Math. Phys. **56**, 163–179 (2001).
(25) A. S. Cattaneo and C. A. Rossi, "Higher-dimensional BF theories in the Batalin–Vilkovisky formalism: the BV action and generalized Wilson loops," Commun. Math. Phys. **221**, 591–657 (2001).
(26) A. S. Cattaneo and G. Felder, "Poisson sigma models and symplectic groupoids," Progress in Mathematics **198**, 61–93 (2001).
(27) A. S. Cattaneo and G. Felder, "On the globalization of Kontsevich's star product and the perturbative Poisson sigma model," Prog. Theor. Phys. Suppl. **144**, 38–53 (2001).
(28) A. S. Cattaneo, G. Felder, and L. Tomassini, "Fedosov connections on jet bundles and deformation quantization," in *Deformation Quantization* (ed. G. Halbout), IRMA Lectures in Mathematics and Theoretical Physics (ed. V. Turaev), 191–202 (de Gruyter, Berlin, 2002).
(29) A. S. Cattaneo, P. Cotta-Ramusino, and R. Longoni, "Configuration spaces and Vassiliev classes in any dimension," Algebr. Geom. Topol. **2**, 949–1000 (2002).
(30) A. S. Cattaneo, G. Felder, and L. Tomassini, "From local to global deformation quantization of Poisson manifolds," Duke Math. J. **115**, 329–352 (2002).
(31) A. S. Cattaneo, J. Fröhlich, and B. Pedrini, "Topological field theory interpretation of string topology," Commun. Math. Phys. **240**, 397–421 (2003).
(32) A. S. Cattaneo and P. Xu, "Integration of twisted Poisson structures," J. Geom. Phys. **49**, 187–196 (2004).
(33) A. S. Cattaneo, "On the integration of Poisson manifolds, Lie algebroids, and coisotropic submanifolds," Lett. Math. Phys. **67**, 33–48 (2004).
(34) A. S. Cattaneo and G. Felder, "Coisotropic submanifolds in Poisson geometry and branes in the Poisson sigma model," Lett. Math. Phys. **69**, 157–175 (2004).
(35) A. S. Cattaneo, B. Dherin, and G. Felder, "Formal symplectic groupoid," Commun. Math. Phys. **253**, 645–674 (2005).
(36) A. S. Cattaneo and C. A. Rossi, "Wilson surfaces and higher dimensional knot invariants," Commun. Math. Phys. **256**, 513–537 (2005).
(37) A. S. Cattaneo, P. Cotta-Ramusino, and R. Longoni, "Algebraic structures on graph cohomology," J. of Knot Theory and Its Ramifications **14**, 627–640 (2005).
(38) A. S. Cattaneo, D. Fiorenza, and R. Longoni, "On the Hochschild–Kostant–Rosenberg map for graded manifolds," IMRN **62**, 3899–3918 (2005).
(39) A. S. Cattaneo, D. Fiorenza, and R. Longoni, "Graded Poisson algebras," in *Encyclopedia of Mathematical Physics*, (ed. J.-P. Françoise, G. L. Naber, and Tsou S. T.), Vol. **2**, 560–567 (Oxford: Elsevier,

2006); new revised and extended version in *Encyclopedia of Mathematical Physics, 2nd edition*, (ed. R. Szabo and M. Bojowald), Vol. **3**, 520–528 (Oxford: Elsevier, 2025).

(40) F. Bonechi, A. S. Cattaneo, and M. Zabzine, "Geometric quantization and non-perturbative Poisson sigma model," Adv. Theor. Math. Phys. **10**, 683–712 (2006).

(41) A. S. Cattaneo, "From topological field theory to deformation quantization and reduction," in *Proceedings of the International Congress of Mathematicians, Madrid, Spain, 2006*, (ed. M. Sanz-Solé, J. Soria, J. L. Varona, J. Verdera), **Vol. III**, 338–365 (European Mathematical Society, 2006).

(42) A. S. Cattaneo and G. Felder, "Relative formality theorem and quantisation of coisotropic submanifolds," Adv. Math. **208**, 521–548 (2007).

(43) A. S. Cattaneo and M. Zambon, "Pre-Poisson submanifolds," Travaux mathématiques **17**, 61–74 (2007).

(44) A. S. Cattaneo, "Deformation quantization and reduction," Cont. Math. **450**, 79–101 (2008).

(45) A. S. Cattaneo and F. Schätz, "Equivalences of higher derived brackets," J. Pure and Applied Algebra **212**, 2450–2460 (2008).

(46) A. S. Cattaneo and C. Torossian, "Quantification pour les paires symetriques et diagrammes de Kontsevich," Ann. Sci. Éc. Norm. Sup. **41**, 789–854 (2008).

(47) A. S. Cattaneo and M. Zambon, "Coisotropic embeddings in Poisson manifolds," Trans. Amer. Math. Soc. **361**, 3721–3746 (2009).

(48) A. S. Cattaneo and M. Zambon, "Graded geometry and Poisson reduction," AIP Conf. Proc. **1093**, 48–56 (2009).

(49) A. S. Cattaneo, G. Felder, and T. Willwacher, "On L_∞-morphisms of cyclic chains," Lett. Math. Phys. **90**, 85–101 (2009).

(50) A. S. Cattaneo and P. Mnëv, "Remarks on Chern–Simons invariants," Commun. Math. Phys. **293**, 803–836 (2010).

(51) A. S. Cattaneo, B. Dherin, and A. Weinstein, "Symplectic microgeometry, I: Micromorphisms," J. Sympl. Geom. **8**, 205–223 (2010).

(52) A. S. Cattaneo, J. Qiu, and M. Zabzine, "2D and 3D topological field theories for generalized complex geometry," Adv. Theor. Math. Phys. **14**, 695–725 (2010).

(53) A. S. Cattaneo, B. Dherin, and G. Felder, "Formal Lagrangian operad," International Journal of Mathematics and Mathematical Sciences, vol. 2010, Article ID 643605, 36 pages, 2010. doi:10.1155/2010/643605.

(54) A. S. Cattaneo and G. Felder, "Effective Batalin–Vilkovisky theories, equivariant configuration spaces and cyclic chains," Progress in Mathematics **287**, 111–137 (2011).

(55) A. S. Cattaneo and F. Schätz, "Introduction to supergeometry," Rev. Math. Phys. **23**, 669–690 (2011).

(56) A. S. Cattaneo, B. Dherin, and A. Weinstein, "Symplectic microgeometry II: Generating functions," Bull. Brazilian Math. Soc. **42**, 507–536 (2011).
(57) A. S. Cattaneo, G. Felder, and T. Willwacher, "The character map in deformation quantization," Adv. Math. **228**, 1966–1989 (2011).
(58) A. S. Cattaneo, P. Mnëv, and N. Reshetikhin, "Classical and quantum Lagrangian field theories with boundary," 25 pages, in Proceedings of the "Corfu Summer Institute 2011 School and Workshops on Elementary Particle Physics and Gravity," PoS(CORFU2011)044.
(59) F. Bonechi, A. S. Cattaneo, and P. Mnëv, "The Poisson sigma model on closed surfaces," JHEP **2012**, 99, pages 1–27 (2012).
(60) A. S. Cattaneo, I. Contreras, and C. Heunen, "Relative Frobenius algebras are groupoids," J. Pure and Applied Algebra **217**, 114–124 (2013).
(61) A. S. Cattaneo and M. Zambon, "A supergeometric approach to Poisson reduction," Commun. Math. Phys. **318**, 675–716 (2013).
(62) A. S. Cattaneo, B. Dherin, and A. Weinstein, "Symplectic Microgeometry III: Monoids," J. Sympl. Geom. **11**, 319–341 (2013).
(63) A. S. Cattaneo, C. A. Rossi, and C. Torossian, "Biquantization of symmetric pairs and the quantum shift," J. Geom. Phys. **74**, 211–250 (2013).
(64) A. S. Cattaneo, B. Dherin, and A. Weinstein, "Integration of Lie algebroid comorphisms," Portugaliae Mathematica **70**, 113–144 (2013).
(65) A. S. Cattaneo and I. Contreras, "Groupoids and Poisson sigma models with boundary," *Geometric, Algebraic and Topological Methods for Quantum Field Theory*, January 2014, 315–330 (2014).
(66) A. S. Cattaneo, "Coisotropic submanifolds and dual pairs," Lett. Math. Phys. **104**, 243–270 (2014).
(67) A. S. Cattaneo, P. Mnëv, and N. Reshetikhin, "Classical BV theories on manifolds with boundaries," Commun. Math. Phys. **332**, 535–603 (2014).
(68) A. S. Cattaneo and P. Mnëv, "Wave relations," Commun. Math. Phys. **332**, 1083–1111 (2014).
(69) A. S. Cattaneo, P. Mnëv, and N. Reshetikhin, "Semiclassical quantization of classical field theories," *Mathematical Aspects of Quantum Field Theories*, Mathematical Physics Studies (Springer), 275–324 (2015).
(70) A. S. Cattaneo and I. Contreras, "Relational symplectic groupoids," Lett. Math. Phys. **105**, 723–767 (2015).
(71) A. S. Cattaneo and M. Schiavina, "BV-BFV approach to general relativity: Einstein–Hilbert action," J. Math. Phys. **57**, 023515 (2016), 17 pages.
(72) F. Bonechi, A. S. Cattaneo, and R. Iraso, "Comparing Poisson sigma model with A-model," JHEP 10 (2016) 133, 11 pages.

(73) A. S. Cattaneo and M. Schiavina, "On time," Lett. Math. Phys. **107**, 375–408 (2017).
(74) A. S. Cattaneo and A. Perez, "A note on the Poisson bracket of 2d smeared fluxes in loop quantum gravity," Class. Quant. Grav. **34**, 107001 (2017), 5 pages.
(75) A. S. Cattaneo, N. Moshayedi, and K. Wernli, "Relational symplectic groupoid quantization for constant Poisson structures," Lett. Math. Phys. **107**, 1649–1688 (2017).
(76) A. S. Cattaneo, P. Mnëv, and K. Wernli, "Split Chern–Simons theory in the BV-BFV formalism," in *Quantization, Geometry and Noncommutative Structures in Mathematics and Physics*, A. Cardona, H. Ocampo, P. Morales, S. Paycha, A.F. Reyes Lega (Eds.), Springer 2017, 293–324.
(77) A. S. Cattaneo, "Integral Invariants of 3-Manifolds (Commentary on [111], [114])," in *Raoul Bott: Collected Papers*, Tu L. (eds), Contemporary Mathematicians, Birkhäuser, 2017, 101-102.
(78) A. S. Cattaneo, P. Mnëv, and N. Reshetikhin, "Perturbative quantum gauge theories on manifolds with boundary," Commun. Math. Phys. **357**, 631–730 (2018); see also: hedgehog BV
(79) A. S. Cattaneo, M. Schiavina, and I. Selliah, "BV-equivalence between triadic gravity and BF theory in three dimensions," Lett. Math. Phys. **108**, 1873–1884 (2018).
(80) A. S. Cattaneo, P. Mnëv, and N. Reshetikhin, "Poisson sigma model and semiclassical quantization of integrable systems," Rev. Math. Phys. **30**, 93–118 (2018).
(81) A. S. Cattaneo and M. Schiavina, "The reduced phase space of Palatini–Cartan–Holst theory," Ann. Henri Poincaré **20**, 445–480 (2019).
(82) A. S. Cattaneo, N. Moshayedi, and K. Wernli, "Globalization for Perturbative Quantization of Nonlinear Split AKSZ Sigma Models on Manifolds with Boundary," Commun. Math. Phys. **372**, 213–260 (2019).
(83) A. S. Cattaneo and M. Schiavina, "BV-BFV approach to General Relativity: Palatini–Cartan–Holst action," Adv. Theor. Math. Phys. **23**, 1801–1835 (2019).
(84) A. S. Cattaneo, P. Mnëv, and N. Reshetikhin, "A cellular topological field theory," Commun. Math. Phys. **374**, 1229–1320 (2020).
(85) A. S. Cattaneo, N. Moshayedi, and K. Wernli, "On the globalization of the Poisson sigma model in the BV-BFV formalism," Commun. Math. Phys. **375**, 41–103 (2020).
(86) A. S. Cattaneo and N. Moshayedi, "Introduction to the BV-BFV formalism," Rev. Math. Phys. **32**, 2030006 (2020), 67 pages.
(87) F. Bonechi, A. S. Cattaneo, R. Iraso, and M. Zabzine, "Observables in the equivariant A-model," Lett. Math. Phys. **110**, 695–711 (2020).

(88) F. Bonechi, A. S. Cattaneo, J. Qiu, and M. Zabzine, "Equivariant Batalin–Vilkovisky formalism," J. Geom. Phys. **154**, 103720 (2020), 13 pages.
(89) A. S. Cattaneo and T. Shimizu, "A note on the Θ-invariant of 3-manifolds," Quantum Topol. **12**, 111–127 (2021).
(90) G. Canepa, A. S. Cattaneo, and M. Schiavina, "General relativity and the AKSZ construction," Commun. Math. Phys. **385**, 1571–1614 (2021).
(91) G. Canepa, A. S. Cattaneo, and M. Tecchiolli, "Gravitational constraints on a lightlike boundary," Ann. Henri Poincaré **22**, 3149–3198 (2021).
(92) A. S. Cattaneo, B. Dherin, and A. Weinstein, "Symplectic microgeometry IV: Quantization," Pacific Journal of Math. **312**, 355–399 (2021).
(93) A. S. Cattaneo and I. Contreras, "Split canonical relations," Ann. Henri Lebesgue **4**, 155–185 (2021).
(94) G. Canepa, A. S. Cattaneo, and M. Schiavina, "Boundary structure of general relativity in tetrad variables," Adv. Theor. Math. Phys. **25**, 327–377 (2021).
(95) A. S. Cattaneo, P. Mnëv, and K. Wernli, "Theta invariants of lens spaces via the BV-BFV formalism." In: Alekseev, A., Frenkel, E., Rosso, M., Webster, B., Yakimov, M. (eds), *Representation Theory, Mathematical Physics, and Integrable Systems*. Progress in Mathematics **340**, 71–110 (2021).
(96) A. S. Cattaneo, P. Mnëv, and K. Wernli, "Constrained systems, generalized Hamilton–Jacobi actions, and quantization," Journal of Geometric Mechanics **14**, 179–272 (2022).
(97) A. S. Cattaneo, P. Mnëv, and K. Wernli, "Quantum Chern–Simons theories on cylinders: BV-BFV partition functions," Commun. Math. Phys. **398**, 133–218 (2023).
(98) A. S. Cattaneo, "The canonical BV Laplacian on half-densities," Rev. Math. Phys. **35**, 2330003, 24 pages (2023).
(99) F. Bonechi, A. S. Cattaneo, and M. Zabzine, "Towards equivariant Yang–Mills theory," J. Geom. Phys. **189**, 104836, 27 pages (2023).
(100) A. S. Cattaneo and P. Mnëv, "A note on gluing via fiber products in the (classical) BV-BFV formalism," J. Geom. Phys. **192**, 104956, 25 pages (2023).
(101) F. M. Castela Simão, A. S. Cattaneo, and M. Schiavina, "BV equivalence with boundary," Lett. Math. Phys. **191**, 25, 91 pages (2023).
(102) G. Canepa and A. S. Cattaneo, "Corner structure of four-dimensional general relativity in the coframe formalism," Ann. Henri Poincaré **25**, 2585–2639 (2024).
(103) A. S. Cattaneo, L. Menger, and M. Schiavina, "Gravity with torsion as deformed BF theory," 59 pages, Class. Quant. Grav. **41**, 155001 (2024).

(104) G. Canepa, A. S. Cattaneo, F. Fila-Robattino, and M. Tecchiolli, "Boundary structure of the standard model coupled to gravity," 53 pages, Ann. Henri Poincaré (2024).
(105) G. Canepa, A. S. Cattaneo, and F. Fila-Robattino, "Boundary structure of gauge and matter fields coupled to gravity," Adv. Theor. Math. Phys. **28**, 1647–1727 (2024).
(106) A. S. Cattaneo, "Phase space for gravity with boundaries," *Encyclopedia of Mathematical Physics, 2nd edition*, (ed. R. Szabo and M. Bojowald), Vol. **1**, 480–494 (Oxford: Elsevier, 2025).
(107) A. S. Cattaneo, P. Mnëv, and M. Schiavina, "BV quantization," *Encyclopedia of Mathematical Physics, 2nd edition*, (ed. R. Szabo and M. Bojowald), Vol. **5**, 543–555 (Oxford: Elsevier, 2025).
(108) A. S. Cattaneo, N. Moshayedi, and A. S. Funcasta, "3D supergravity in the Batalin–Vilkovisky formalism," 21 pages, Ann. Henri Poincaré (2025).
(109) A. S. Cattaneo and S. Jiang, "Equivariant localization in Batalin–Vilkovisky formalism," 13 pages, Diff. Geom. Appl. **100**, 102265 (2025).
(110) A. S. Cattaneo and Nima Moshayedi, "Equivariant BV-BFV formalism," 26 pages, J. Geom. Phys. **218**, 105684 (2025).
(111) A. S. Cattaneo, F. Fila-Robattino, V. Huang, and M. Tecchiolli, "Gravity coupled with scalar, SU(n), and spinor fields on manifolds with null-boundary," Adv. Theor. Math. Phys. **29**, 1773–1825 (2025).

3. Lecture notes

(112) A. S. Cattaneo and D. Indelicato, "Formality and Star Products," in *Poisson Geometry, Deformation Quantisation and Group Representations*, (ed. S. Gutt, J. Rawnsley, D. Sternheimer), London Mathematical Society Lecture Note Series **323**, 79–144 (Cambridge University Press, 2005).

4. Books

(113) A. S. Cattaneo, B. Keller, C. Torossian, and A. Bruguières, *Déformation, Quantification, Théorie de Lie*, Panoramas et Synthèse **20** (2005), viii+186 pages.

5. Books (as editor)

(114) A. S. Cattaneo, G. Dito, M. Kontsevich, and D. Sternheimer (guest editors), *Special Issue on Deformation Quantization*, in SIGMA **4** (2008) and **5** (2009), http://www.emis.de/journals/SIGMA/
(115) A. Alekseev, A. S. Cattaneo, Y. Kosmann-Schwarzbach, and T. S. Ratiu (guest editors), *Special Volume on Poisson Geometry*, Lett. Math. Phys. **90**, Nos. 1–3, (2009).

(116) A. S. Cattaneo, A. Giaquinto, and P. Xu (editors), *Higher Structures in Geometry and Physics: In Honor of Murray Gerstenhaber and Jim Stasheff,* Progress in Mathematics **287**, XV, 362 p. 92 illus., (2011, Birkhäuser, Boston).

6. Preprints

(117) A. S. Cattaneo, P. Mnëv, and N. Reshetikhin, "Perturbative BV theories with Segal-like gluing," 8 pages, arXiv:1602.00741

(118) H. Bursztyn, A. S. Cattaneo, R. A. Mehta, and M. Zambon, "Graded geometry and generalized reduction," 74 pages, arXiv:2306.01508; to appear in Memoirs of the European Mathematical Society

(119) M. L. Bottoni, A. S. Cattaneo, and E. Sacikara, "Teaching 'Foundations of Mathematics' with the LEAN Theorem Prover," 33 pages, arXiv:2501.03352

(120) A. S. Cattaneo and F. Fila-Robattino, "BV description of $N = 1$, $D = 4$ supergravity in the first order formalism," 32 pages, arXiv:2503.07373

(121) G. Canepa and A. S. Cattaneo, "4D Palatini–Cartan gravity in hamiltonian form," 18 pages, arXiv:2507.02431; to appear in Adv. Theor. Math. Phys.

(122) G. Canepa and A. S. Cattaneo, "BV pushforward of Palatini–Cartan gravity," 28 pages, arXiv:2507.06279; to appear in Commun. Math. Phys.

(123) A. S. Cattaneo, "Surface observables, 2-knot invariants, and non-abelian electric fluxes," 38 pages, arXiv:2511.13623; to appear in Commun. Math. Phys.

(124) A. S. Cattaneo and F. Fila-Robattino, "The reduced phase space of $N = 1$, $D = 4$ supergravity in the BV-BFV formalism," 57 pages, arXiv:2601.13025

(125) G. Canepa, A. S. Cattaneo, F. Fila-Robattino, and T. Leupp, "Corner quantization of 4D BF theory," 40 pages, arXiv:2605.30006

(126) A. S. Cattaneo and P. Mnev, "BV pushforward as a quasi-isomorphism," 62 pages, arXiv:2605.30558

(127) A. S. Cattaneo and S. Jiang, "From L_∞ algebroids to L_∞ spaces: Part I," 46 pages, arXiv:2606.24837

(128) A. S. Cattaneo, F. Fila-Robattino, and M. Tecchiolli, "The reduced Dirac structure of General Relativity on manifolds with corners," 57 pages, arXiv:2607.28262

7. Unpublished papers

(129) A. S. Cattaneo, "The Lagrangian operad," 11 pages, 2002, http://www.math.uzh.ch/reports/05_05.pdf

(130) A. S. Cattaneo, B. Dherin, and A. Weinstein, "Cotangent microbundle category, I," 33 pages, math-ph/0712.1385

(131) H. Bursztyn, A. S. Cattaneo, R. A. Mehta, and M. Zambon, "The Frobenius theorem for graded manifolds and applications in graded symplectic geometry," 14 pages, 2009, http://www.math.uzh.ch/fileadmin/math/preprints/12_09.pdf
(132) A. S. Cattaneo, "De affinitatibus poissonianis inter termina spatiumque internum"

8. Internal lecture notes

(133) A. S. Cattaneo, *On the BV formalism*, 21 pages, 1996.
(134) A. S. Cattaneo, *Notes on the self-linking number*, 12 pages, 1999.
(135) A. S. Cattaneo, *Skript für MATLAB*, 63 pages.
(136) A. S. Cattaneo, *Lineare Algebra für Analysis*, 14 pages.
(137) A. S. Cattaneo, *Der Transformationssatz*, 19 pages.
(138) A. S. Cattaneo, *2×2*, 45 pages.
(139) A. S. Cattaneo, *Some Notes on Classical Mechanics*, 40 pages.
(140) A. S. Cattaneo, *Notes on Manifolds*, 180 pages.
(141) A. S. Cattaneo, *Linear Algebra II for Physicists*, 167 pages.

9. Computer codes

(142) A. S. Cattaneo and M. Furter, *Choice in CoDesign*; also on GitHub and on UZH Math gitlab.