

Liviu Ornea - List of publications

A. Research Articles

Preprints

1. [*A characterization of compact locally conformally hyperkaehler manifolds*](#) (with [Alexandra Otiman](#)).
2. [*Flat affine subvarieties in Oeljeklaus-Toma manifolds*](#) (with [Misha Verbitsky](#) and [Victor Vuletescu](#)). To appear in *Mathematische Zeitschrift*.
3. [*Positivity of LCK potential*](#) (in collaboration with [Misha Verbitsky](#)). To appear in *Journal of Geometric Analysis*. <https://doi.org/10.1007/s12220-018-0046-y>
4. [*Hopf surfaces in locally conformally Kaehler manifolds with potential*](#) (with [M. Verbitsky](#)).
5. [*Homogeneous locally conformally Kaehler manifolds*](#) (with [A. Moroianu](#))
arXiv:1311.0671

Published papers

6. [*Locally conformally Kaehler manifolds with holomorphic Lee field*](#) (with [Andrei Moroianu](#) and [Sergiu Moroianu](#)) *Diff. Geom. Appl.*, 60 (2018), 33--38.
7. [*The spectral sequence of the canonical foliation of a Vaisman manifold*](#) (in collaboration with Vladimir Slesar). *Annals of Global Analysis and Geometry*, 53 (3), (2018), 311--329.
8. [*Weighted Bott-Chern and Dolbeault cohomology for LCK manifolds with potential*](#) (with [M. Verbitsky](#) and [V. Vuletescu](#)). *J. Math. Soc. Japan* 70 (2018), nr. 1, 407--420.
9. [*Embedding of LCK manifolds with potential into Hopf manifolds using Riesz-Schauder theorem*](#) (with [M. Verbitsky](#)). In "Complex and Symplectic Geometry", Springer INdAM serie, 2017, 137--148.
10. [*Basic Morse-Novikov cohomology for foliations*](#) (with V. Slesar), *Mathematische Zeitschrift* 284 (2016), no. 1-2, 469-489.
11. [*LCK rank of locally conformally Kaehler manifolds with potential*](#) (with [M. Verbitsky](#)). *J. Geom. Physics*. 107 (2016), 92-98.
12. [*Locally conformally Kaehler metrics obtained from pseudoconvex shells*](#) (with [M. Verbitsky](#)) *Proceedings Amer. Math. Soc.* 144 (2016), 325-335.

13. [*Compact homogeneous LCK manifolds are Vaisman*](#) (with [A. Moroianu](#) and P. Gauduchon) Math. Annalen. 361 (2015), 1043-1048.
14. [*Holomorphic submersions of locally conformally Kaehler manifolds*](#) (with [M. Parton](#) and [V. Vuletescu](#)). Ann. Matematica Pura ed Applicata 193(5) (2014), 1345-1351.
15. [*Oeljeklaus-Toma manifolds and locally conformally Kahler metrics. A state of the art.*](#) (with [V. Vuletescu](#)). Stud. Univ. Babeş-Bolyai Math. 58(2013), No. 4, 459-468.
16. [*Spin\(9\) geometry of the octonionic Hopf fibration*](#) (with [M. Parton](#), [P. Piccinni](#), [V. Vuletescu](#)). Transformation groups, 18 nr. 3 (2013) 845-864.
17. [*Blow-ups of locally conformally Kaehler manifolds*](#) (with [M. Verbitsky](#) and [V. Vuletescu](#)), International Mathematics Research Notices 12 (2013) 2809-2821.
18. [*Locally conformally Kaehler manifolds admitting a holomorphic conformal flow*](#) (with [M. Verbitsky](#)), Math. Zeitschrift 273 (2013), 605-611.
19. [*An integral invariant from the viewpoint of locally conformally Kaehler geometry*](#) (with [A. Futaki](#) and K. Hattori), Manuscripta mathematica, 140, 1-12 (2013).
20. [*Submanifolds in manifolds with metric mixed 3-structures*](#) (with [S. Ianus](#) and G.E. Vilcu). Mediterranean Journal of Math. 9(2012), 105-128.
21. [*Twistor theory for CR quaternionic manifolds and related structures*](#) (with S. Marchiafava and [R. Pantilie](#)), Monatshefte fuer Mathematik. 167 (2012), 531-545.
22. [*Automorphisms of locally conformally Kaehler manifolds*](#) (with [M. Verbitsky](#)), International Mathematics Research Notices vol. 2012 Nr. 4 894-903.
23. [*Oeljeklaus-Toma manifolds admitting no complex subvarieties*](#) (with [M. Verbitsky](#)), Mathematical Research Letters 18(4), (2011), 747-754.
24. [*A report on locally conformally Kaehler manifolds*](#) (with [M. Verbitsky](#)), "Harmonic Maps and Differential Geometry" Contemporary Mathematics 542, 135-150, 2011.
25. [*On holomorphic maps and generalized complex geometry*](#) (with [R. Pantilie](#)). Journal of Geometry and Physics 61 (2011) 1502-1515.
26. [*Remarks on the product of harmonic forms*](#) (with [M. Pilca](#)), Pacific Journal of Mathematics, 250 (2011), 353-363.
27. [*Essential points of conformal vector fields*](#) (with F.A. Belgun and [A. Moroianu](#)), arXiv:1002.0482. Journal of Geometry and Physics 61 (2011), 589-593.
28. [*Twistorial maps between quaternionic manifolds*](#) (with [S. Ianus](#), [S. Marchiafava](#), [R. Pantilie](#)). Annali Scuola Normale Superiore di Pisa, Cl. Sci. (5) Vol. IX (2010), 47-67.
29. [*Locally conformal Kaehler manifolds with potential*](#) (with [M. Verbitsky](#)), Mathematische Annalen 348 (2010), 25-33.

30. [Topology of locally conformal Kaehler manifolds with potential](#) (with [M. Verbitsky](#)). International Mathematics Research Notices, 4 (2010), 117-126.
31. [On the local structure of generalized Kaehler manifolds](#) (with [R. Pantilie](#)), Bull. Math. Soc. Sci. Math. Roumanie, 52(2009), 347-354.
32. [Transformations of locally conformally Kaehler manifolds](#) (with [A. Moroianu](#)), Manuscripta Mathematica 130 (2009), 93-100.
33. [Morse-Novikov cohomology of locally conformally Kaehler manifolds](#) (with [M. Verbitsky](#)), Journal of Geometry and Physics 59, No. 3 (2009), 295-305.
34. [Einstein-Weyl structures on complex manifolds and conformal version of Monge-Ampere equation](#) (with [M. Verbitsky](#)), Bull. Math. Soc. Sci. Math. Roumanie Tome 51(99) No. 4, 2008, 339-353.
35. [Conformally Einstein Products and Nearly Kaehler Manifolds](#) (with [A. Moroianu](#)), Annals of Global Analysis and Geometry 33(2008), 11-18.
36. [Constructions in Sasakian Geometry](#) (with [C. P. Boyer](#), [K. Galicki](#)). Mathematische Zeitschrift 257 (2007), 907-924.
37. [Sasakian structures on CR-manifolds](#) (with [M. Verbitsky](#)), Geometriae Dedicata, 125 (2007), 159-173.
38. [Embeddings of compact Sasakian manifolds](#) (with [M. Verbitsky](#)), Mathematical Research Letters, 14 (2007), 703-710.
39. [Reduction of Vaisman structures in complex and quaternionic geometry](#) (with R. Gini, [M. Parton](#) and [P. Piccinni](#)), Journal of Geometry and Physics, 56 (2006), 2501-2522.
40. [CR-submanifolds. A class of examples.](#) Rev. roum. math. pures appl. 51 (2006) 77-85.
41. [Locally conformally Kaehler manifolds. A selection of results.](#) Lecture Notes of Seminario Interdisciplinare di Matematica, 4(2005), 121-152. math.DG/0411503.
42. [Non-zero contact and Sasakian reduction](#) (with O. Drăgulete), Differential Geometry and its Applications 24 (2006), 260-270.
43. [Harmonicity and minimality of vector fields and distributions on locally conformal Kaehler and hyperkaehler manifolds](#) (with L. Vanhecke), Bull. of the Belgian Math. Soc. "Simon Stevin" 12 (2005) 543-555.
44. [An immersion theorem for Vaisman manifolds](#) (with [M. Verbitsky](#)), Mathematische Annalen 332 (2005), 121-143.
45. [Locally conformal Kaehler reduction](#) (with R. Gini and [M. Parton](#)), Crelle Journal fuer die Reine und Angewandte Mathematik 581 (2005), 1-21.

46. [*Geometric flow on compact locally conformally Kaehler manifolds*](#) (with [Y. Kamishima](#)). Tohoku Math. J. 57 (2) (2005), 201-221.
47. [*Eigenvalue estimates for the Dirac operator and harmonic 1-forms of constant length*](#) (with [A. Moroianu](#)). Comptes Rendus Acad. Sci. Paris, 338 (2004), 561-564.
48. [*Structure theorem for compact Vaisman manifolds*](#), Mathematical Research Letters, 10 (2003), 799-805 (with [M. Verbitsky](#)).
49. [*Potential 1-forms for hyper-Kaehler structures with torsion*](#), Classical and Quantum Gravity 20 (2003), 1845-1856 (with [Y.S Poon](#) and [A. Swann](#)).
50. [*Cosphere bundle reduction in contact geometry*](#), Journal of symplectic geometry, 1(4) (2002), 695-714. (with O. Dragulete and [T.S. Ratiu](#)).
51. [*Weyl structures in quaternionic geometry. A state of the art*](#). Barletta, Elisabetta (ed.), Selected topics in geometry and mathematical physics. Vol. I. Potenza: Univ. degli Studi della Basilicata, Dip. di Mat., Seminario Interdisciplinare di Matematica, 43-80 (2001).
52. [*Cayley 4-frames and a quaternion Kaehler reduction related to Spin\(7\)*](#), Global differential geometry: the mathematical legacy of A. Gray (Bilbao 2000), 401-405, Contemporary Mathematics 288, 2001 (with [P. Piccinni](#)).
53. [*Reduction of Sasakian manifolds*](#), Journal of Mathematical Physics 48 (2001), 3809-3816 (with G. Grantcharov).
54. [*Local almost contact metric 3-structures*](#) Publicationes Mathematicae (Debrecen) 57 (2000) 499-508 (with P. Matzeu).
55. [*Complex structures on some Stiefel manifolds*](#), Bull. Math. Soc. Sci. Math. Roumanie (N.S.) 49 (2000) (with [P. Piccinni](#)).
56. [*On some moment maps and induced Hopf bundles in the quaternionic projective space*](#), International Journal of Mathematics 11 (2000), 925-942 (with [P. Piccinni](#)).
57. [*Intersections of Riemannian submanifolds. Variations on a theme by T. J. Frankel*](#), Rendiconti di Matematica (Roma), 19 (1999), 107-121 (with T. Bingh and L. Tamassy).
58. [*Locally conformal Kaehler metrics on Hopf surfaces*](#), Annales de l'Institut Fourier, 48 (1998), 1107-1127 (with [P. Gauduchon](#)).
59. [*Compact hyperhermitian-Weyl and quaternion Hermitian-Weyl manifolds*](#), Annals of Global Analysis and Geometry, 16 (1998), 383-398. (with [P. Piccinni](#)). *Erratum*, Same journal, 18 (2000), 105-106.
60. [*An example of an almost hyperbolic Hermitian manifold*](#), International Journal of Mathematics and Mathematical Sciences, 21 (1998), 613-618 (with C.-L. Bejan).

61. [*Locally conformal Kaehler structures in quaternionic geometry*](#), Transactions of the American Mathematical Society, 349 (1997), 641-655, (with [P. Piccinni](#)).
62. [*Induced Hopf bundles and Einstein metrics*](#), in New developments in differential geometry, Budapest (1996), 295-306, Kluwer (with [P. Piccinni](#)).
63. *Weyl structures on quaternionic manifolds*, Proceedings of the Meeting on Quaternionic Structures in Mathematics and Physics, Trieste 1994. SISSA, Trieste, (1996), 261-267, (with P. Piccinni).
64. *Holomorphic and harmonic maps on locally conformal Kaehler manifolds*, Bolletino dell'Unione Matematica Italiana, (7)9-A(1995), 569-579, (with S. Ianus, [V. Vuletescu](#)).
65. [*Conformal geometry of Riemannian submanifolds. Gauss, Codazzi and Ricci equations*](#), Rendiconti di Matematica (Roma), 15, (1995), 233-249, (with G. Romani).
66. *Locally conformal Kaehler manifolds. A survey*, Quaderno n. 12, Dip. di Mat., Univ. di Roma "La Sapienza", (1994).
67. [*The fundamental equations of conformal submersions*](#), Beitrage zur Algebra und Geometrie, 34, (1993), 233-243, (with G. Romani).
68. *Submanifolds with parallel second fundamental form in a generalized Hopf manifold*, Ricerche di Matematica (Napoli), XLII, (1993), 3-9.
69. *Immersiones sphériques dans une variété de Hopf généralisée*, Comptes Rendus de l' Acad. Sci. Paris, 316, Serie I, (1993), 63-66, (with [S. Ianus](#), K. Matsumoto).
70. *A theorem on nonnegatively curved locally conformal Kaehler manifolds*, Rendiconti di Matematica (Roma), serie VII, 12, (1992), 257-262.
71. *A class of antiinvariant submanifolds of a generalized Hopf manifold*, Bull. Math. de la Soc. Sci. Math. de Roumanie, 34, (1990), 115-123, (with [S. Ianus](#)).
72. *Minimal real hypersurfaces of a generalized Hopf manifold*, Analele St. Univ. "Al. I. Cuza" Iasi, 2, (1990), 137-142.
73. *Complex hypersurfaces with planar geodesics in generalized Hopf manifolds*, Mathematika Balkanica 3 (1989) 92-96.
74. *Complex hypersurfaces of a generalized Hopf manifold*, Publications de l'Inst. Math. (Beograd), 42, (1987), 123-129, (with [S. Ianus](#), K. Matsumoto).
75. *CR-submanifolds of a locally conformal Kaehler manifold*, Demonstratio Mathematica, 19, (1986), 863-869.

B. Monographs

1. Locally conformal Kaehler geometry, Progress in Mathematics 155, Birkhauser, 1998 (with Sorin Dragomir).

C. Textbooks

2. Curbe și suprafețe diferențiabile. Culegere de probleme, Ed. Univ. din București, 1995.
3. O introducere în geometrie (with A. Turtoi), Ed. Fundației Theta, ed. a 2-a: 2011.
4. O introducere în geometria diferențială, Ed. Fundației Theta, 2015.