V.A. Dolgushev's Publications

- **Submitted:**

1. Morita equivalence and characteristic classes of star products, H. Bursztyn, V. Dolgushev and S. Waldmann, submitted to J. Reine Angew. Math.; arXiv:0909.4259.
2. Proof of Swiss Cheese Conjecture, V.A. Dolgushev, D.E. Tamarkin, and B.L. Tsygan, submitted to Compos. Math.; arxiv:0904.2753
3. Formality of the Homotopy Calculus Algebra of Hochschild (co)Chains. V.A. Dolgushev, D.E. Tamarkin, and B.L. Tsygan, submitted to J. Noncomm. Geom.; arXiv:0807.5117

- **Accepted or Published:**

1. Noncommutative calculus and the Gauss-Manin connection, V.A. Dolgushev, D.E. Tamarkin, and B.L. Tsygan, accepted to Proceedings of "Higher Structures in Geometry and Physics" (Paris, January 15-19, 2007). Prog. Math. Birkhäuser; arXiv:0902.2202
2. Formality Theorems for Hochschild Complexes and their Applications, V.A. Dolgushev, D.E. Tamarkin, and B.L. Tsygan, accepted to Proceedings of "Poisson 2008" (Lausanne, July 7-11, 2008) Lett. Math. Phys.; arXiv:0901.0069
3. The Van den Bergh Duality and the Modular Symmetry of a Poisson Variety. V.A. Dolgushev, Selecta Math. (N.S.) **14**, 2 (2009) 199–228; arXiv:math/0612288.
4. An Algebraic Index Theorem for Poisson Manifolds. V.A. Dolgushev and V.N. Rubtsov, J. Reine Angew. Math. **2009**, 633 (2009) 77–113; arXiv:0711.0184.
5. Formality Theorem for Hochschild (co)Chains of the Algebra of Endomorphisms of a Vector Bundle. V.A. Dolgushev, Math. Res. Lett. **14**, 5 (2007) 757–767; math.KT/0608112.
6. The Homotopy Gerstenhaber Algebra of Hochschild Cochains of a Regular Algebra is Formal. V.A. Dolgushev, D.E. Tamarkin, and B.L. Tsygan, J. Noncomm. Geom., **1**, 1 (2007) 1-25; math.KT/0605141.
7. A Proof of Tsygan's Formality Conjecture for an Arbitrary Smooth Manifold. V.A. Dolgushev, PhD thesis M.I.T.; math.QA/0504420.
8. Formality Theorems for Hochschild Chains in the Lie Algebroid Setting, D. Calaque, V.A. Dolgushev, and G. Halbout, J. Reine Angew. Math. **612** (2007) 81–127; math.KT/0504372.

9. Hochschild Cohomology of Quantized Symplectic Orbifolds and the Chen-Ruan Cohomology. V.A. Dolgushev and P.I. Etingof, Int. Math. Res. Not. **27** (2005) 1657–1688; ITEP-TH-43/04; math.QA/0410562.

10. A Simple Algebraic Proof of the Algebraic Index Theorem. P. Chen and V.A. Dolgushev, Math. Res. Lett. **12**, 5 (2005) 655-672; ITEP-TH-29/04; math.QA/0408210.

11. Hochschild Cohomology versus De Rham Cohomology without Formality Theorems. V.A. Dolgushev, Int. Math. Res. Not. **21** (2005) 1277–1305; ITEP-TH-15/04; math.QA/0405177.

12. A Formality Theorem for Hochschild Chains. V.A. Dolgushev, Adv. Math. **200**, 1 (2006) 51-101; MPG-12/04; math.QA/0402248.

13. Covariant and Equivariant Formality Theorems. V.A. Dolgushev, Adv. Math. **191**, 1 (2005) 147–177; ITEP-TH-39/03; math.QA/0307212.

14. Classical R-Matrices and the Feigin-Odesskii Algebra via Hamiltonian and Poisson Reductions. H.W. Braden, V.A. Dolgushev, M.A. Olshanetsky, and A.V. Zotov, J. Phys. **A36** (2003) 6979-7000; ITEP-TH-03/03, EMPG-03-01; hep-th/0301121.

15. R-Matrix Structure of Hitchin System in Tyurin Parameterization. V.A. Dolgushev, Commun. Math. Phys. **238**, 1-2 (2003) 131–147, ITEP-TH-44/02; math.AG/0209145.

16. On the Fedosov Deformation Quantization beyond the Regular Poisson Manifolds. V.A. Dolgushev, A.P. Isaev, S.L. Lyakhovich and A.A. Sharapov, Nucl. Phys. **B645** (2002) 457-476; ITEP-TH-30/02; hep-th/0206039.

17. Quantization of triangular Lie bialgebras. V.A. Dolgushev, A.P. Isaev, S.L. Lyakhovich and A.A. Sharapov, Czech. J. Phys., **52**, 11 (2002) 1195–1200. Talk given by V.A. Dolgushev at the International conference "Quantum Groups and Integrable Systems, 11", Prague, Czech Republic, June 20-22, 2002.

18. The Fedosov Class of the Wick Type Star-Product, V.A. Dolgushev. Talk given at International Conference "New Developments in Fundamental Interaction Theories" (Poland, February 6-15, 2001) AIP Conference Proceedings, Vol. 589, (2001) pp. 416-424. Melville, NY.

19. Sklyanin Bracket and Deformation of the Calogero-Moser System. V.A. Dolgushev, Mod. Phys. Lett. **A16** (2001) 1711-1725; ITEP-TH-7-01; hep-th/0102167.

20. Wick Quantization of a Symplectic Manifold. V.A. Dolgushev, S.L. Lyakhovich, A.A. Sharapov. Talk given at International Conference on Supersymmetry and Quantum Field Theory: D.V. Volkov Memorial Conference (Ukraine, July 25-29, 2000), 6pp., Nucl. Phys. Proc. Suppl. **102** (2001) 144–149; ITEP-TH-10-01, hep-th/0103091.

21. Wick Type Deformation Quantization of Fedosov Manifolds. V.A. Dolgushev, S.L. Lyakhovich, A.A. Sharapov, Nucl. Phys. **B606** (2001) 647–672; hep-th/0101032.

22. Wick Type Symbol and Deformed Algebra of Exterior Forms. V.A. Dolgushev, S.L. Lyakhovich, A.A. Sharapov. Talk given at International Conference on Quantization, Gauge Theory, and Strings: Conference Dedicated to the Memory of Professor Efim Fradkin.(Moscow June 5-10, 2000) 6pp. 2001. Scientific World, Vol. 2, p.19, hep-th/0010029.

23. Polynomial Gauge Invariants of a Bosonic String. V.A. Dolgushev. Talk given at the 14th International Conference on High Energy Physics and Quantum Field Theory (Moscow, May 27- June 2, 1999) 4pp. 1999 "Moscow" p. 592; hep-th/9910227.

24. Galileo Particle of Non-zero Spin. V.A. Dolgushev, I.V. Gorbunov, S.L. Lyakhovich, Russ. Phys. J. **42** (1999) 168–178.