

**Articles - preprints**

39.  $L^2$ -Cohomology and complete Hamiltonian manifolds (with R. Mazzeo and T. Ratiu), Preprint (19 p.).

**Articles - submitted or in the arxiv**

38. Euler-MacLaurin formulas via differential operators (with Y. Le Floch), [arXiv:1312.5711](#). Submitted (21 p.).
37. The affine invariant of generalized semitoric systems (with T. Ratiu and S. Vũ Ngọc), [arXiv:1307.7516](#). Submitted (29 p.).
36. An integer optimization problem for non-Hamiltonian periodic flows (with S. Sabatini), [arXiv:1307.6766](#). Submitted (15 p.).
35. Poincaré-Birkhoff theorems in random dynamics (dedicated to Alan Weinstein on his 70th Birthday) (with F. Rezakhanlou), [arXiv:1306.0821](#). Submitted (28 p.).
34. Sharp symplectic embeddings of cylinders (with S. Vũ Ngọc), [arXiv:1304.5250](#) (11 p.).
33. The Hofer question on intermediate symplectic capacities (with S. Vũ Ngọc), [arXiv:1210.1537](#). Submitted (21 p.).
32. Homotopy type theory and Voevodsky's univalent foundations (with M. Warren), [arXiv:1210.5658](#). Submitted (48 p.).
31. Applying Hodge theory to detect Hamiltonian flows (with T. Ratiu), [arXiv:1005.2163](#) (12 p.).
30. Log-concavity and symplectic flows (with Y. Lin), [arXiv:1207.1335](#). Submitted (21 p.).

**Articles - published or to appear**

29. A univalent formalization of the p-adic numbers (with V. Voevodsky and M. Warren), *Math. Structures in Computer Science*, in press (22 p.), [arXiv:1302.1207](#).
28. Semiclassical inverse spectral theory for singularities of focus-focus type (with S. Vũ Ngọc), *Comm. Math Phys.*, in press (14 p.). [arXiv:1302.2260](#).
27. Semiclassical quantization and spectral limits of h-pseudodifferential and Berezin-Toeplitz operators (with L. Polterovich and S. Vũ Ngọc) *Proc. London Math. Soc.*, in press (28 p.). [arXiv:1302.0424](#).
26. Fiber connectivity and bifurcation diagrams for almost toric systems (with T. Ratiu and S. Vũ Ngọc), *J. of Symplectic Geometry*, in press (39 p.). [arXiv:1108.0328](#).
25. Moduli spaces of toric manifolds (with A.R. Pires, T. Ratiu, S. Sabatini), *Geometriae Dedicata*, in press (19 p.). [arXiv:1207.0092](#).
24. Isospectrality for quantum toric integrable systems (dedicated to Peter Sarnak on his 60th Birthday) (with L. Charles and S. Vũ Ngọc), *Ann. Sci. Ec. Norm. Sup.* 43 (2013) 815-849.
23. Voevodsky's Univalence Axiom in homotopy type theory (with S. Awodey and M. Warren), *Notices Amer. Math. Soc.* 60 (2013) 1164-1167.
22. Symplectic spectral geometry of semiclassical operators, *Bull. Belgian Math. Soc.* 20 (2013) 405-415.
21. Circle valued momentum maps for symplectic periodic flows (with T. Ratiu), *L'Enseign. Math.* 58 (2012) 205-219.
20. First steps in symplectic and spectral theory of integrable systems (with S. Vũ Ngọc), *Discr. and Cont. Dyn. Syst., Series A* 32 (2012) 3325-3377.

19. Hamiltonian dynamics and spectral theory for spin-oscillators (with S. Vũ Ngọc), *Comm. Math Phys.* 309 (2012) 123-154.
18. Symplectic geometry on moduli spaces of J-holomorphic curves (with J. Coffey and L. Kessler), *Ann. Glob. Anal. Geom.* 41 (2012) 265-280.
17. Symplectic theory of completely integrable Hamiltonian systems (with S. Vũ Ngọc), *Bull. Amer. Math. Soc.* 48 (2011) 409-455.
16. Constructing integrable systems of semitoric type (with S. Vũ Ngọc), *Acta Math.* 206 (2011) 93-125.
15. Fourier integral operators, spectral theory, and Hamiltonian systems, *Gac. Real Soc. Mat. Esp.* 14 (2011) 247-262.
14. Fixed points of symplectic periodic flows (with S. Tolman), *Ergod. Theory and Dyn. Syst.* 31 (2011) 1237-1247.
13. Complex structures on 4-manifolds with symplectic 2-torus actions (with J.J. Duistermaat), *Intern. J. Math.* 2 (2011) 449-463.
12. Remembering Johannes J. Duistermaat (1942-2010), (with V. Guillemin, S. Vũ Ngọc, and A. Weinstein), *Not. Amer. Math. Soc.* 58 (2011) 794-802.
11. Non-Kähler symplectic manifolds with toric symmetries (with Y. Lin), *Quart. J. Math.* 62 (2011) 103-114.
10. Topology of symplectic torus actions with symplectic orbits (with J.J. Duistermaat), *Revist. Mat. Complut.* 24 (2011) 59-81.
9. Symplectic actions of 2-tori on 4-manifolds, *Mem. Amer. Math. Soc.* 204 (2010) no. 959, viii+ 91 p. arXiv:0609848
8. Reduced phase space and toric variety coordinatizations of Delzant spaces (with J.J. Duistermaat), *Math. Proc. Cam. Phil. Soc.* 146 (2009) 695-718.
7. Semitoric integrable systems on symplectic 4-manifolds (with S. Vũ Ngọc), *Invent. Math.* 177 (2009) 571-597.
6. Maximal ball packings of symplectic toric manifolds (with B. Schmidt), *Intern. Math. Res. Not. IMRN* (2008), 24p, ID rnm139.
5. Symplectic torus actions with coisotropic principal orbits (with J.J. Duistermaat), *Ann. de l'Inst. Fourier* 57 (2007) 2239-2327.
4. Topology of spaces of equivariant symplectic embeddings, *Proc. Amer. Math. Soc.* 35 (2007) 277-288.
3. A geometric approach to the classification of the equilibrium shapes of self-gravitating fluids (with D. Peralta), *Comm. Math. Phys.* 267 (2006) 93-115.
2. Toric symplectic ball packing, *Topology and Its Appl.* 157 (2006) 3633-3644.
1. Unbounded trajectories of dynamical systems (with F.G. Gascon and D. Peralta), *Appl. Math. Lett.* 17 (2004) 253-259.

#### Books

1. Geometric Quantization. A Lie Theory Approach (with B. Kostant), *Springer Universitext*, to appear, 2013.
2. Homotopy Type Theory: Univalent Foundations of Mathematics, The Univalent Foundations Program Institute for Advanced Study, 2013, arXiv:1308.0729.

#### PhD Thesis

Symplectic Torus Actions (Advisor: Yael Karshon), University of Michigan at Ann Arbor, August 16 of 2007.