

Alexei Grinbaum – List of publications

Book

“Mécanique des étreintes : intrication quantique” (in French, to appear in 2014)

Papers on the foundations of physics:

1. “Quantum observer, Information Theory and Kolmogorov Complexity,” in *New Challenges to Philosophy of Science*, eds. H. Andersen, D. Dieks, W. J. Gonzalez, T. Uebel and G. Wheeler, Springer, 2013, pp. 59-72.
2. “Quantum Observer and Kolmogorov Complexity”, in A. Wüthrich and T. Sauer, eds., *New Vistas on Old Problems: Recent Approaches to the Foundations of Quantum Mechanics*, Edition Open Access, Max Planck Research Library for the History and Development of Knowledge Proceedings vol. 3, 2013, pp. 13-34.
3. “Twin quantum Cheshire Cats” (with I. Ibounhsein), arXiv:1202.4894.
4. “A Conjecture on the Amount of Non-Locality”, arXiv:1103.4810.
5. “Quantum observer and Kolmogorov complexity: a model that can be tested”, 2011. Older version: “A Mathematical Criterion of ‘Element of Reality’”, arXiv:1007.2756.
6. “Which fine-tuning arguments are fine?” *Foundations of physics*, 42, 2012, pp. 615-631, arXiv:0903.4055.
7. “On Epistemological Modesty”, *Philosophica*, 83, 2010, pp. 139-150.
8. “On the eve of the LHC: conceptual questions in high-energy physics”, arXiv:0806.4268, PhilSci/4088.
9. “Reconstructing instead of interpreting quantum theory”, *Philosophy of Science*, 74, 2007, pp. 761–774.
10. “Reconstruction of quantum theory,” *British Journal for the Philosophy of Science*, 58, 2007, pp. 387–408.
11. “On the notion of reconstruction of quantum theory,” quant-ph/0509104.
12. “Information-theoretic principle entails orthomodularity of a lattice,” *Foundations of Physics Letters* 18 (6), 2005, pp. 563–572.
13. “Elements of information-theoretic derivation of the formalism of quantum theory”, *International Journal of Quantum Information* 1(3), 2003, pp. 289–300.
14. “Information-theoretic derivation of the formalism of quantum theory”, in: A. Khrennikov (ed.), *Proceedings of International Conference “Quantum theory: Reconsideration of Foundations–2”*, Växjö University Press, Växjö, Sweden, 2004, pp. 205-217.

Papers on ethics and philosophy of science:

15. “The Old-New Meaning of Researcher’s Responsibility”, *Etica & Politica / Ethics & Politics*, XV, 2013, 1, pp. 236-250.
16. « Le vivant à l’aune de la biologie de synthèse », *Biofutur*. 339 (janvier 2013), pp. 41-42.
17. « Biologie de synthèse : questions de société », *Les Annales des Mines : Réalités industrielles*, février 2013, pp. 91-95.
18. “What is ‘responsible’ about responsible innovation? Understanding the Ethical Issues”, in *Responsible Innovation: Managing the Responsible Emergence of Science and Innovation in Society* (eds R. Owen, J. Bessant and M. Heintz), Wiley, 2013, pp. 119-142 (with C. Groves).
19. « Nom et image comme rites de la technoscience », *Visible*, 8, 2012, pp. 203-214.
20. “Nanotechnological Icons”, *Nanoethics*, 5, 2011, pp. 195-202.
21. “The Nanotechnological Golem”, *Nanoethics*, 4, 2010, pp. 191-198.
22. « Le défi social des nanotechnologies », *Agir*, septembre 2010, pp. 29-36.

23. « Au-delà des risques », in : *Risques émergents*, Paris : Economica, 2010, pp. 155-157.
English version in: *Emerging Risks*, ed. C. A. Rimbault and A. Barre, Gower, 2012, pp. 209-212.
24. *Toolkit for ethical reflection and communication on nanoscience and nanotechnology*, Publication of the European project observatoryNano, 2010 (avec M. Pavlopoulos and V. Bontems).
25. « Les dimensions éthiques des nanotechnologies », in : *Nanotechnologies : Les guides de l'innovation*, Paris : Techniques de l'ingénieur, 2010, pp. 10-12 (avec M. Pavlopoulos)
26. « La catastrophe nanotechnologique », *Le Mensuel de l'Université*, 2009.
27. « Nanosciences : les enjeux du débat », *Le Débat*, janvier-février 2008, pp. 65-79 (with E. Klein and V. Bontems).
28. « Barrières cognitives dans la perception des nanotechnologies », *Annales des Mines : Réalités industrielles*, mai 2007, pp. 47–53.
29. "Cognitive Barriers in Perception of Nanotechnology," *Journal of Law, Medicine and Ethics*, 34(4), 2006, 689–694.
30. "Living With Uncertainty: From the Precautionary Principle to the Methodology of Ongoing Normative Assessment", *C. R. Geoscience* 337(4), 2005, 457–474 (with J.-P. Dupuy).
31. "Living With Uncertainty: Toward a Normative Assessment of Nanotechnology", *Techné* joint issue with *Hyle* 8(2), 2004, pp. 4-25 (with J.-P. Dupuy). Also in: *Nanotechnology Challenges: Implications for Philosophy, Ethics and Society*, ed. J. Schummer and D. Baird, Singapore: World Scientific Publishing, 2006, pp. 287–314.
32. "Ethics Beyond Prudence: Toward a Normative Assessment of Nanotechnology", Report of European Workshop on Social and Economic Issues of Nanotechnologies and Nanosciences, European Commission, Brussels, 14-15 April 2004, pp. 29–31 (with J.-P. Dupuy).
33. "Nanobuduschee" (Nanofuture), *Vedomosti*, December 2004 (in Russian).
34. « La condition de l'homme moderne et les nanotechnologies », in: G. Nivat (ed.), *Les limites de l'humain. 39^{ème} Rencontres Internationales de Genève*, L'Age d'Homme, Geneva, 2004, p. 141.

Citations and reviews of my work

In journals: *Nature*, *Science et Avenir*, *Science et Vie*, *La Recherche*.
In radio and television programmes in France and Russia.

Translation

Lee Smolin *Troubles with Physics* (for the French edition: Dunod, 2007).

Editorial work

Poetry and prose books by Joseph Brodsky.

Other

35. « La limite d'un étrange lien à distance », *La Recherche*, 455, p. 52-55, septembre 2011 (in French).
36. "O filosofii fiziki" (*On the philosophy of physics*), *Zvezda*, 10, 2003, pp. 217-224 (in Russian).
37. "Acoustics of Bells", In: *Proceedings of student conferences in physics of the Department of Applied Mathematics of Institute of Fine Mechanics and Optics*, St. Petersburg, 1997.
38. "Versification in *Fin de Siècle* by Joseph Brodsky", In: M. Gasparov (ed.), *Slavic Verse. Linguistics and Applied Poetics*. Moscow, 2001, pp. 86-100.
39. Translation into Russian: H. Mitgang "Vladimir Nabokov," *Zvezda*, 4, 1999.