

ALEXEI GRINBAUM

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- Born 30/11/1978 in St. Petersburg, Russia
- Single
- Nationality : Russian
- Languages : Russian, French, English, Italian

Research Positions

Since December 2006	Researcher at the LARSIM laboratory, CEA-Saclay (France)
Since March 2007	Deputy Director of the Groupe de recherche et d'intervention sur la science et l'éthique (GRISE), Ecole Polytechnique (France)
September – November 2006	Postdoctoral fellow at the Perimeter Institute for Theoretical Physics (Canada)
February– November 2006	Scientific Advisor to the Director of Ecole Normale Supérieure (France)
September 2005 – August 2006	CNRS postdoctoral fellow at LPHS – Archives Henri Poincaré (France)
October 2004 – August 2005	Postdoctoral fellow at CREA, Ecole Polytechnique (France)

Visiting Researcher

May 2006	Stanford University (USA)
May 2006	Yale University (USA)
March-April 2006	Perimeter Institute for Theoretical Physics (Canada)
April-May 2005	Yale University (USA)
February 2005	Perimeter Institute for Theoretical Physics (Canada)

Education

2004	Ph.D. (Docteur de l'Ecole Polytechnique). Dissertation "The Significance of Information in Quantum Theory," highest mark attributed by the dissertation committee.
2003	Magister Scientiae in theoretical physics (St. Petersburg State University).
2001	DEA de Sciences cognitives (Ecole Polytechnique, Paris)
2000	Diploma of the International Program (Ecole Polytechnique, Paris)
1999	B.Sc. <i>cum laude</i> in physics (St. Petersburg State University). Thesis "Scattering problem in two-dimensional supersymmetric quantum mechanics."
1995	Ranked 1 st with the Golden Medal upon graduation from Lyceum 239, St. Petersburg.

Other positions

- Open Society Institute – New York: Consultant (2004)
- International Debate Education Association: Board member and Treasurer (2001-2003), Board member and Secretary (1999-2001), National Debate Trainer (1998), Regional Debate Trainer (1996), teacher of debate and forensics (1996-1999)
- The Estate of Joseph Brodsky, representative (since 1997)
- Joseph Brodsky Memorial Fellowship Fund, special consultant (since 2004)

Talks

1. Nanosciences et nanotechnologies : quelles ruptures ? (Grenoble, December 2007)
2. European Philosophy of Science Association meeting (Madrid, November 2007)
3. Les nanotechnologies et la décision publique (Lyon, September 2007)
4. Ethics and security in nanosciences (Grenoble, September 2007)
5. « L'aveuglement technologique et le sacré », in honour of J.-P. Dupuy (Cerisy, July 2007)
6. Science and myth (Stanford, June 2007)
7. Temps et irréversibilité (Cargèse, April 2007)
8. 15th UK and European Meeting on the Foundations of Physics (Leeds, March 2007)
9. Pragmatism and Quantum Mechanics (Paris, February 2007)
10. LARSIM seminar, CEA-Saclay (February 2007)
11. Penser la catastrophe – Entre nature et politique (Paris, December 2006)
12. Philosophy of Science Association Twentieth Biannual Meeting (Vancouver, November 2006)
13. International Quantum Structure Association Biannual Meeting (Malta, July 2006)
14. Seminar of the CEA Service for Theoretical Physics (SPhT, CEA/Saclay, June 2006)
15. Stanford University philosophy of physics seminar (Stanford, May 2006)
16. Stanford University lecture on the foundations of nanoethics (Stanford, May 2006)
17. “Piquodos” seminar in quantum theory, Perimeter Institute for Theoretical Physics (Canada, March 2006)
18. Quantum Mechanics and Human Sciences (Paris, March 2006)
19. Les enjeux éthiques des nanotechnologies (Cité des sciences, Paris, February 2006)
20. « Pensée des sciences » seminar, Ecole Normale Supérieure (Paris, February 2006)
21. Time, Information and Perspective in the Quantum World (Sydney, December 2005)
22. Séminaire de Philosophie et d'Histoire des Sciences du LPHS (Nancy, November 2005)
23. Philosophical and Foundational Issues in Quantum Theory (Budapest, September 2005)
24. Quantum Information — Epistemological and Logical Lessons (Lisbon, August 2005)
25. NATO workshop “What is quantum in a quantum computer?” (Konstanz, May 2005)
26. Workshop at Collège de France (Paris, March 2005)
27. Seminar of the Center Leo Apostel, Vrije Universiteit Brussel (Brussels, March 2005)
28. Nanoethics (University of South Carolina, March 2005)
29. CEPERC Epistemological Seminar (Aix-en-Provence, January 2005)
30. Determinism (Stanford, November 2004)
31. Quantum Information – Logical Aspects (Sardinia, September 2004)
32. Nanomatériaux et industrie : une démarche intégrée pour la maîtrise des risques. Journée de l'ECRIN (Paris, November 2004)
33. Rencontres Régionales de la Recherche : « Recherche et Société » (Lyon, October 2004)
34. Déterminismes et complexités : de la physique à l'éthique (Cerisy, June 2004)
35. IPCC Workshop on Uncertainty and Risk (Dublin, May 2004)
36. European Workshop on Economic, Ethical, Social and Legal Aspects of Nanosciences and Nanotechnologies (Brussels, April 2004)
37. Rencontres Internationales de Genève (Geneva, September 2003)

Referee for

Publishers: Oxford University Press, Editions du Seuil, Flammarion

Journals: British Journal for the Philosophy of Science, Foundations of Science, Philosophia Scientiæ, Comptes Rendus de l'Académie des Sciences – Geosciences

Prizes, fellowships and distinctions

- Qualification of Conseil national des universités (France), Sections 17 et 72 (2005)
- Research fellowship of French Ministry of Education, Research and Technologies (2001-2004)
- Fellowship of the French Government (2000-2001)
- Fellowship of the Foundation of Ecole Polytechnique (1999-2000)
- National expert of the Open Society Institute Russia (1999)
- Soros student prize in physics, Soros Foundation Russia (1996)

- 2nd prizes at St. Petersburg Physics Olympiad (1994 and 1995), team member at Russian National Physics Olympiad (1994)
- Member of top 20 at St. Petersburg Olympiads in mathematics (1991-1995), computer science (1993-1995), astronomy (1995)
- Absolute winner of St. Petersburg Biology Olympiad (1991).
- Absolute winner of St. Petersburg Literature Olympiad (1995).

Conference organization

- Organizer of Séminaire LARSIM (ongoing)
- Co-organizer of Séminaire des fondements de la physique (CREA-IHPST, ongoing)
- Organizer of conference “Operational approaches to quantum theory” (Paris, October 2007)
- Co-organizer of conference “Philosophical and formal foundations of modern physics” (Les Treilles, April 2007)
- Co-organizer of conference “Social and ethical implication of the nano-, bio-, info-, cogno-technological convergence” (Avignon, December 2006)
- Organizer of two-day workshop on the foundations of physics (CREA, Fall 2003)
- Co-organizer of numerous events in Eastern Europe for the Open Society Institute and the Soros Foundation (1997-2003)

Research Projects

- ANR research project « Fondements de la physique » (2006-2009)
- European Commission research project *observatoryNano*: European observatory for science-based and economic expert analysis of nanotechnologies (2008-2012)
- European Commission research project DEEPEN on the ethics of nanotechnology (2006-2009), associated researcher
- ANR research project « Biotechnologies et Nanotechnologies : enjeux éthiques et philosophiques » (2006-2008)
- ESF Research Network for Philosophical and Foundational Problems of Modern Physics (2002-2005)

Alexei Grinbaum – List of publications

Current work

Book: « Comprendre le hasard : de l'oracle à la statistique » (work with Henri Atlan).

Articles:

1. « L'aveuglement technologique et le sacré » (to appear in *Esprit*)

Published work

Foundations of physics:

2. "Reconstructing instead of interpreting quantum theory" (submitted to *Philosophy of Science*).
3. "Reconstruction of quantum theory," *British Journal for the Philosophy of Science*, 58 (2007), pp. 387-408.
4. "On the notion of reconstruction of quantum theory," quant-ph/0509104.
5. "Information-theoretic principle entails orthomodularity of a lattice," *Foundations of Physics Letters* 18 (6), 2005, pp. 563-572.
6. "Elements of information-theoretic derivation of the formalism of quantum theory", *International Journal of Quantum Information* 1(3), 2003, pp. 289–300.
7. "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.
8. "O filosofii fiziki" (*On the philosophy of physics*), *Zvezda*, 10, 2003, pp. 217-224 (in Russian).

Uncertainty in philosophy of science:

9. « Barrières cognitives dans la perception des nanotechnologies », *Les Annales des Mines : Réalités industrielles*, Mai 2007, pp. 47-53.
10. "Cognitive Barriers in Perception of Nanotechnology," *Journal of Law, Medicine and Ethics*, 34(4), 2006, 689–694.
11. "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).
12. "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.
13. "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).
14. "Nanobuduschee" (Nanofuture), *Vedomosti*, December 2004 (in Russian).
15. « 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.

Translation

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

Editorial work

Numerous books by Joseph Brodsky.

Other

16. "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.
17. "Versification in Fin de Siècle by Joseph Brodsky", In: M. Gasparov (ed.), *Slavic Verse. Linguistics and Applied Poetics*. Moscow, 2001, pp. 86-100.
18. Translation into Russian: H. Mitgang "Vladimir Nabokov," *Zvezda*, 4, 1999.