

Gavriel Segre's Curriculum Vitae

- April 1970: birth at Turin (and hence I am an Italian citizen)
- July 1997: degree in Physics from the "Università La Sapienza" of Rome (Italy) (vote: 110/110) presenting a thesis "Bottiglie magnetiche su superfici di Riemann" with tutor prof. Giovanni Jona-Lasinio
- January 2002: Phd in Physics from the Pavia's University (Italy) presenting a dissertation "Algorithmic Information Theoretic Issues in Quantum Mechanics" with tutor prof. Alberto Rimini
- December 2004 - January 2006: post-doc position at the "International Center for Mathematical Modelling in Physics and Cognitive Sciences" of Växjö (Sweden) with tutor prof. Andrei Khrennikov
- November 2017: guest of Dr. Emanuele Dalla Torre at the Jack and Pearl Reznick Institute of Advanced Technology, Bar Ilan University, Israel

I. PAPERS

- "Physical complexity of classical and quantum objects and their dynamical evolution from an information-theoretic viewpoint" International Journal of Theoretical Physics vol 43, n.6, June 2004
- "Noncommutative Bayesian Statistical Inference from a wedge of a Bifurcate Killing Horizon" International Journal of Theoretical Physics vol 43, n.6, June 2004
- (co-authored with prof. A. Khrennikov) "Von Neumann Uniqueness Theorem doesn't hold in Hyperbolic Quantum Mechanics" math-ph/0511044, International Journal of Theoretical Physics vol 45, n.10, October 2006
- "Hyperbolic Quantization" Proceedings of the 26th Conference of Quantum Probability and Infinite Dimensional Analysis, Levico, Italy, 20-26 February 2005, L. Accardi, W. Freudenberg, M Schurmann editors, World Scientific, 2007
- "Law of Excluded Quantum Gambling Strategies" quant-ph/0104080
- "Stochastic Variational Principle on Riemannian Manifolds" math-ph/0104015
- "The definition of a random sequence of qubits: from Noncommutative Algorithmic Probability Theory to Quantum Algorithmic Information Theory and back" quant-ph/0009009
- (Phd thesis) "Algorithmic Information Theoretic Issues in Quantum Mechanics" quant-ph/0110018
- "The No Cloning Theorem versus the Second Law of Thermodynamics" quant-ph/0202109
- "Einstein's Lifts and Topologies: topological investigations on the Principle of Equivalence" gr-qc/0207114
- "On the mathematical structure of Tonal Harmony" math.HO/0402204
- "A remark about the Mermin-Squires Music Hall's interludium" quant-ph/0403087
- "The non-adiabatic classical geometric phase and its bundle-theoretic interpretation" math.DS/0403189
- "The Aharonov-Anandan phase of a classical dynamical system seen mathematically as a quantum dynamical system" math-ph/0511087
- "Renormalization Group versus Kolmogorov-Sinai entropy: a very simple remark" math-ph/0512045
- "A Gröenwald Van Hove like formulation of the ordering problems of General Relativity" math-ph/0512061
- (co-authored with prof. A. Khrennikov) "An Introduction to Hyperbolic Analysis" math-ph/0507053
- "Two spaces that already found their geometer in the thirties" cond-mat/0207564
- "Some elementary rigorous remark about the replica formalism in the Statistical Physics' approach to threshold phenomena in Computational Complexity Theory" math-ph/0605049

- "The multihistory approach to the time-travel paradoxes of General Relativity: mathematical analysis of a toy model" math-ph/0610085
- "There exist consistent temporal logics admitting changes of History" gr-qc/0612021
- "A new kind of numbers, the Non-Dedekindian Numbers, and the extension to them of the notion of algorithmic randomness" math.GM/0612590
- "The mathematical role of (commutative and noncommutative) infinitesimal random walks over (commutative and noncommutative) riemannian manifolds in Quantum Physics" math-ph/0703011
- "Analytic Mechanics of Locally Conservative Physical Systems" 0705.3415 [Mathematical Physics]
- "Time-reversal properties in the coupling of quantum angular momenta" 0709.1376 [Quantum Physics]
- "Phase operator of the quantum supersymmetric harmonic oscillator" 0710.3138 [Quantum Physics]
- "Quantum democracy is possible" 0806.3667 [General Physics]
- "Quantum substitutions of Pisot type, their quantum topological entropy and their use for optimal spacing" 0807.0241 [Mathematical Physics]
- "Martin Löf-Solovay-Chaitin Axiom of Reduction versus Von Mises-Church Axiom of Reduction" 0904.2782 [Mathematical Physics]
- "An interesting temporalization of Gödel's ontological proof" 0904.3921 [General Physics]
- "The natural definition of the quantum dynamical entropy in the framework of deformation quantization" 1004.1965 [Mathematical Physics]
- "Magnetic Bottles on Riemann Surfaces" 1101.2418 [Mathematical Physics]
- "Classification of the automorphisms of the noncommutative torus among the (chaotic and non-chaotic) shallow ones and the non-chaotic complex ones" 1101.2667 [Mathematical Physics]

II. SCIENTIFIC QUOTATIONS

- Cristian Calude Information and Randomness, Springer Verlag, 2002
- Fabio Benatti, Till Kruger, Marcus Muller, Rainer Siegmund Schultze Arleta Szkola "Entropy and Quantum Kolmogorov Complexity. A Quantum Brudno's Theorem", Communications in Mathematical Physics, July 2006, vol. 265, Issue 2, pages 437-461
- George Musser "Humans Think Like Quantum Particles", Scientific American, November, 2002

III. SOFTWARE

I have a good knowledge of Fortran and a very good knowledge of Mathematica as it is proved by the Mathematica code extensively reported in my papers.