

Curriculum vitae

Gheorghe Nenciu

Data si locul nasterii:

28.06.1944, Moeciul de Jos

Nationalitate:

Romana

Adresa personala:

Bucuresti, str. Henri Coanda nr. 31B, sector 1.

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Adresa profesionala:

Facultatea de Fizica, Universitatea Bucuresti, Platforma Magurele, CP.

Mg 11, Bucuresti.

Titlul stiintific:

Doctor in fizica.

Functia actuala:

Profesor la Catedra de Fizica Teoretica si Matematici a Facultatii de Fizica, Universitatea Bucuresti.

Cercetator Principal I in Institutul de Matematica "Simion Stoilow" al Academiei Romane, 1993-.

Studii:

Scoala Elementara, Moeciul de Jos, 1951-1958.

Scoala Medie, Rasnov, 1958-1962.

Universitatea Bucuresti, Facultatea de Fizica, 1962-1967.

Lucrarea de Diploma: "Proprietati Asimptotice ale Matricii S".

Indrumator

stiintific: S. Titeica.

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Doctorat in Fizica Teoretica: 1973. Teza: "Extrapolari Analitice Stabile in Teoria Interactiilor Tari". Conducator stiintific: S. Ciulli.

Pozitii in cercetare si invatamant:

Fizician in Sectia de Fizica Teoretica I.F.A. Bucuresti: 1967-1975.

Cercetator Principal III in Sectia de Fizica Teoretica I.F.A.

Bucuresti:1975-

1990.

Conferentiar la Catedra de Fizica Statistica si Mecanica Cuantica, Facultatea

de Fizica, Universitatea Bucuresti: 1990-1994.

Profesor la Catedra de Fizica Teoretica si Matematici, Facultatea de Fizica,

Universitatea Bucuresti: 1994-.

Cercetator Principal I in Institutul de Matematica "Simion Stoilow" al Academiei Romane, 1993-.

Conducator de doctorat : 1996-

Premiul Academiei Romane

D. Hurmuzescu: 1972.

Stagii in strainatate:

Specializare:

Nordita, Copenhaga: 1972 (3 luni)

Stagii de lucru:

IUCN-Dubna:1980-1983.

Universitatea Zurich:1973 (3 luni); 1978 (2 luni);1979 (2 luni); 1981 (1 luna).

Profesor invitat:

Max Planck Institut, Munchen: 1986 (3 luni).

Universite Paris VII, Paris: 1989 (2 luni); 1991 (1 luna).

Ecole Polytechnique Federale de Lausanne, Lausanne: 1990 (1 luna); 1992

(3 luni); 1994 (2 luni).

Universitat Zurich, Zurich:1992 (3 luni).

E.T.H. Zurich:1992 (3 luni)

CPT Marseille: 1992 (1 luna); 1994 (1 luna); 1998 (1 luna) ; 1999 (1 luna); 2000 (1 luna); 2002 (1 luna)

Institut Mittag-Leffler, Stocholm: 1993 (1 luna)

Erwin Schrodinger Institute, Vienna: 1993 (3 luni)

Universite Paris XIII, Paris: 1994 (1 luna); 1996 (1 luna)

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Aalborg University, Danemarca 1998 (2 luni); 1999 (1 luna);2000 (1 luna); 2002 (1 luna); 2005-2007 (2luni).

Directeur de recherche:

CNRS Paris: 1992 (3 luni); 1994 (6 luni)

Conferinte tinute la:

ENS, Paris

Ecole Polytechnique, Palaiseau

Max Planck Institut, Munchen

Technische Universitat Berlin

Technische Universitat Munchen

Universite Paris VII, Paris

Ecole Polytechnique Federale de Lausanne, Lausanne:

Universitat Zurich, Zurich.

E.T.H. Zurich

CPT Marseille:

Institut Mittag-Leffler

Erwin Schrodinger Institute

Universite Paris XIII

Universita de Bologna

Aalborg Univ.

Arhus Univ.

Univ. of Tokyo

Conferinte organizate:

Scoala de vara internationala " Recent developments in Quantum Mechanics"

1989, Brasov (impreuna cu A. Boutet de Monvel, P. Dita, R. Purice)
Seminarul international "New Results in Quantum Mechanics and
Related
Topics" (impreuna cu R.Purice si V. Iftimie), Bucuresti 1998.
Conferinta internationala "Operator Algebras and Mathematical
Physics"
2001, Constanta (impreuna cu F. Boca, R. Purice si S. Stratila)
Conferinta Internationala "QMath 10" (impreuna cu I. Beltita, R. Purice)
2007, Moeciu.

Membru in:

"Advisory Board" al revistei Helvetica Physica Acta (1990-2000).
Consiliul stiintific al retelei europene de cercetare "Mathematics and
Quantum Physics" 2000-2008.

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"Editorial Board" al revistei "Asian-European Journal of Mathematics"
2008-

Publicatii:

Peste 75 articole publicate in reviste stiintifice ISI si volume ale unor
conferinte internationale.

Domenii stiintifice abordate si lucrari reprezentative:

i. Teoria operatorilor Schrödinger cu camp magnetic si aplicatii.

Lucrari reprezentative:

1. N. Anghel, M. Bundaru, G. Nenciu: On the Landau Diamagnetism.
Commun. Math. Phys. 42, 9-28 (1975).

2. G. Nenciu: Dynamics of Band Electrons in Electric and Magnetic
Fields: Rigorous Justification of Effective Hamiltonians.
Rev. Mod. Phys. 63, 91-127 (1991).

3. D.H.Cornean, G.Nenciu: On the eigenfunction decay for magnetic
Schrödinger operators.

Commun. Math. Phys. 192, 671-685 (1998)

4. G. Nenciu: On asymptotic perturbation theory for quantum
mechanics:

almost invariant subspaces and gauge invariant magnetic perturbation
theory.

J. Math. Phys. 43, 1273-1298 (2002).

5. G. Nenciu: On the smoothness of gap boundaries for generalized
Harper operators.

Advances in operator algebras and mathematical physics, 173-182,
Theta

Ser. Adv. Math., 5, Theta, Bucharest, 2005.

6. H. D. Cornean, G. Nenciu, T. G. Pedersen: The Faraday effect
revisited:

general theory.

J. Math. Phys. 47 (2006), no. 1, 013511

ii. Mecanica Cuantica Relativista; ecuatie Dirac.

Lucrari reprezentative:

7. G. Nenciu: Self-adjointness and Invariance of the Essential Spectrum for Dirac Operators Defined as Quadratic Forms.

Commun. Math. Phys. 48, 235-247 (1976).

8. G. Nenciu, Existence of Spontaneous Pair Creation in the External Field Approximation of Q.E.D.

Commun. Math. Phys. 109, 303-312 (1987).

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9. D. R. Grigore, G. Nenciu, R. Purice: On the Non-relativistic Limit of the Dirac Hamiltonian.

Ann. Inst. Henri Poincare 51, 231-263 (1989).

iii. Rezultate riguroase in Mecanica Statistica si Teoria Starii Condensate

.

Lucrari reprezentative:

10. N. Angelescu, G. Nenciu: On the Independence of the Thermodynamic

Limit on the Boundary Condition in Quantum Statistical Mechanics.

Comm. Math. Phys. 29, 15-30 (1972).

11. A. Nenciu, G. Nenciu: Dynamics of Bloch Electrons in External Electric Fields: I. Bounds for Interband Transitions and Effective Wannier

Hamiltonians.

II. Existence of Stark-Wannier resonances

J. Phys. A: Math. Gen. 14, 2817, (1981); 15, 3313 (1982)

12. G. Nenciu: Existence of the Exponentially Localized Wannier Functions.

Commun. Math. Phys. 91, 81-85 (1983)

13. A. Nenciu, G. Nenciu

Existence of generalized Wannier functions for one dimensional systems.

Commun. Math. Phys. 190, 541-548 (1998)

14. G. Nenciu: Independent electron model for open quantum systems: Landauer-Büttiker formula and strict positivity of the entropy

production.

J. Math. Phys. 48, 033302, 8 pp. (2007).

iv. Dezvoltari adiabaticice si teoria asimptotica a perturbatiilor .

Lucrari reprezentative:

15. G. Nenciu: Adiabatic Theorem and Spectral Concentration. I. Arbitrary

Order Spectral Concentration for the Stark Effect in Atomic Physics.

Commun. Math. Phys. 82, 121-136 (1981).

16. G. Nenciu: Linear Adiabatic Theory. Exponential Estimates.

Commun. Math. Phys. 152, 479-496 (1993).

17. Ph. A. Martin, G. Nenciu: Semi-classical Inelastic S-Matrix for Onedimensional

N-States Systems

Rev. Math. Phys. 7, 193-242 (1995)

v. Teoria spectrala a operatorilor Schrödinger in vecinatatea pragurilor energetice si aplicatii. .

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Lucrari reprezentative:

18. A. Jensen, G. Nenciu: A unified approach to resolvent expansions at thresholds.

Rev. Math. Phys. 13, 717-754 (2001).

19. A. Jensen, G. Nenciu: The Fermi Golden Rule and its form at threshold

in odd dimensions.

Commun. Math. Phys. 261, 693-727 (2006).

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