

Saturday, April 13th

Aspects of Nonperturbative QFT

Chairperson: A. Bonanno

14.30 15.10	K. Falls	Progress in asymptotic safety
15.10 15.50	A. Platania	Asymptotically Safe Gravity on foliated spacetimes
15.50 16.20	Coffee Break	
16.20 17.00	L. Zambelli	Asymptotic freedom beyond perturbative renormalizability
17.00 17.40	G. Clemente	Spectral Methods and Running Scales in Causal Dynamical Triangulations
17.40 18.00	L. Rachwal	Infrared fixed points in quantum conformal Weyl gravity
18.00 18.20	M. Kurkov	Parity anomalies on 4D manifolds with boundaries
18.20 18.40	I. Basile	Aspects of Gravitational Vacuum Stability

Sunday, April 14th

Aspects of Nonperturbative QFT

Chairperson: A. Bonanno

9.00 9.40	R. Percacci	Metric Affine Quantum Gravity and unification
9.40 10.20	D. Anselmi	Fakeons, quantum gravity and the classical limit
10.20 11.00	O. Zanusso	Covariant methods for the determination of the effective action
11.00 11.20	Coffee Break	
11.20 12.00	D. Dorigoni	Cheshire cat resurgence in supersymmetric QM and QFT
12.00 12.40	C. Bonati	Some aspects of color confinement in lattice gauge theories
	Lunch	
14.30 15.10	G. P. Vacca	Wilsonian Renormalization Group in the Functional Nonperturbative Approach
15.10 15.50	D. Zappalà	Isotropic Lifshitz points in d=4 dimensions

15.50 16.20	Coffee Break	
16.20 17.00	C. Dappiaggi	Ricci Flow from Non Linear Sigma Models: The Viewpoint of Algebraic Quantum Field Theory
17.00 17.40	F. Becattini	Extensivity, entropy current, area law and Unruh effect
17.40 18.00	G. Luciano	Neutrino mixing and oscillations in Unruh radiation
18.00 18.20	L. Smaldone	Flavor-Energy uncertainty relations for neutrino oscillations in quantum field theory
18.20 18.40	L. Buoninfante	Nonlocal generalization of gravity and Galilean theories

Monday, April 15th

Foundations of Quantum Theory

Chairperson: Th. Elze

9.00 9.50	G. 't Hooft	Constructing deterministic models for quantum mechanical systems
9.50 10.25	L. Maccone	Quantum measurements of time
10.25 10.55	Coffee Break	
10.55 11.30	M. Genovese	Quantum optics as a tool for visualizing open timelike curves
11.30 12.20	J. Fröhlich	Demystifying quantum mechanics - the ETH approach
	Lunch	
14.30 15.05	H.-T. Elze	Cellular automata, QM and elusive interactions
15.05 15.40	G. Vitiello	Dissipation and quantization
15.40 16.10	Coffee Break	
16.10 16.45	S. Pascazio	Power-law quantum decay
16.45 17.20	G. Marmo	Evolution on the stratified manifold of quantum states, a Lagrangian description

17.20 17.55	F. Illuminati	State vector incompatibility, quantumness, and quantum coherence
20.00	Social Dinner	
	Musical Event: Kateřina Fürstová, Soprano Massimo Blasone, Piano	

Tuesday, April 16th

Foundations of Quantum Theory

Chairperson: Th. Elze

9.00 9.50	M. D'Ariano	Quantum theory as operational probabilistic theory: what we have learnt
9.50 10.25	F. Sciarrino	Experimental tests on quantum causality
10.25 10.55	Coffee Break	
10.55 11.30	L. Castellani	History operators in quantum mechanics: can measurements affect the past?
11.30 12.05	Y. Srivastava	Locality, zero-point energy and time-symmetric motion of spinning photons
12.05 12.40	F. Scardigli	Uncertainty principle in presence of gravitation
	Lunch	
14.30 14.45	A. Quaranta	Dirac and Majorana neutrinos: decoherence, phases and CPT violation
14.45 15.10	L. Petruzzello	Generalized uncertainty principle and corpuscular gravity
15.10 15.35	A. Naddeo	A quantum low-energy gravity model free from causality violation problems
15.35 16.05	Coffee Break	
16.05	ROUNDTABLE <i>G. 't Hooft, J. Fröhlich, G. M. D'Ariano, A. Bonanno, M. Carfora, F. Lizzi, Th. Elze</i> "The foundations of quantum theory – in good shape or is action needed?"	

Wednesday, April 17th

Quantum Spacetime
 Chairperson: P. Vitale

9.00 9.35	M. Carfora	Ricci Curvature and Quantum Geometry
9.40 10.15	A. Sitarz	Spectral action: from neutrino masses to bimetric gravity
10.20 10.40	Coffee break	
10.40 11.15	M. Arzano	The Unruh effect without space-time
11.20 11.55	G. Rosati	The Duflo non-commutative Fourier transform for the Lorentz group
	Break	
12.10 12.45	A. Giusti	Classicalization in Quantum Field Theory and Gravity
12.50 13.25	G. Gubitosi	Quantum spacetime symmetries, curved momentum space and relative locality
	Lunch	
15.20 15.55	P. Martinetti	Extracting Lorentz structure from the Euclidean in Noncommutative Geometry
16.00 16.35	A. Carotenuto	Differential calculus for Jordan algebras and modules and the Standard model of particle physics"
16.40 17.00	Coffee break	
17.00 17.35	F. Lizzi	Localization and Reference Frames in kappa-Minkowski Spacetime
17.40	Closing	

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Foundations of Quantum Theory
Quantum Spacetime

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