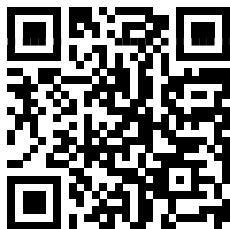


The all sessions take place in the room for the Faculty Council meetings (room 16)

For more information about the Symposium including **abstracts** and the **list of presented posters** visit

<https://zfn-quatecnomm.home.amu.edu.pl>



based on design of K. Bartkiewicz



Prof. Stanisław Kielich
(10.XI.1925 - 15.X.1993)

The Symposium is dedicated to the memory of Prof. Stanisław Kielich.

Stanisław Kielich is considered to be one of the founders and leading experts in nonlinear optics, with forty years of continuous research work in the subject. He authored more than three hundred scientific papers. He had more than twenty PhD students. Four of his students are professors now. He was a member of the Polish Academy of Sciences. Among other distinctions he was awarded the Marian Smoluchowski Medal (1983) and twice the Cross of Merit (1976,1983).

Main organizers: Krzysztof Grygiel, Jarosław W. Kłos, Maciej Krawczyk, and Adam Miranowicz

Organizing Committee: Karol Bartkiewicz, Grzegorz Chimczak, Anna Kowalewska-Kudłaszyk

QuTecNOMM^{'18}

28 XI – 6 XII

The Fourth Poznań Symposium
on Quantum Technologies,
Nonlinear Optics,
Magnonics, and Metamaterials



Adam Mickiewicz University
in Poznań

Collegium Physicum
ul. Umultowska 85
61-614, Poznań, Poland



QUANTUM TECHNOLOGIES (28 NOV 2018)		
8:30	R. Tanaś (Poznań)	Violation of monogamy relations for negativity in a three-atom system
8:55	W. Leoński (Zielona Góra)	Quantum steering in a system of three qubits – some remarks and findings
9:20	K. Lemr (Olomouc)	Diagnosing quantum relays by means of collective entanglement witnesses
9:45	K. Jiráková (Olomouc)	Experimental counterfeiting of quantum money
10:05	V. Trávníček (Olomouc)	Experimental measurement of nonlinear entanglement witness by hyper-entangling two-qubit states
10:20 COFFEE BREAK		
10:40	A. Grudka (Poznań)	Time travel and the Second Law of Thermodynamics
11:05	P. Kurzyński (Poznań)	Evolution of negative probability distributions
11:30	Z. Lasmar (Poznań)	On composite behaviour of complex quantum systems: sometimes entanglement needs to be backed by interaction
11:50	M. Karczewski (Poznań)	Monogamy of Particle Statistics in Tripartite Systems Simulating Bosons and Fermions
12:10 SHORT BREAK		
12:20	J. Kalaga (Zielona Góra)	Generation of squeezed states in a quantum-chaotic system
12:45	M. Nowotarski (Zielona Góra)	Entanglement properties of highly symmetric qudit states
13:05	I. Domagalska (Zielona Góra)	Influence of a charge asymmetry of cores on the physical state of the positively charged molecule ion
13:25	G. Chimczak (Poznań)	Four-level diamond-type atom as a field-field coupler
13:40 LUNCH AND POSTER SESSION I		
14:40	J. Soubusta (Olomouc)	Experimental testing of three-qubit nonlocality
15:05	A. Černoch (Olomouc)	Beam-splitting tricks
15:30	K. Bartkiewicz (Poznań)	Measuring distance between points in Hilbert space with photons
15:55 COFFEE BREAK AND POSTER SESSION II		
16:25	I. Arkhipov (Olomouc)	Revealing nonclassicality of Gaussian states of light
16:50	S. Ismael Abo (Poznań)	Photon-phonon blockades
17:10	A. Kowalewska-Kudłaszyk (Poznań)	Photon blockade via squeezing

NONLINEAR OPTICS, MAGNONICS AND, METAMATERIALS (5 DEC 2018)		
9:00	R. Tanaś, N. Kielich-Buchowska (Poznań)	Memories of Prof. Stanisław Kielich
9:40 SHORT BREAK		
9:45	J. Peřina, Jr (Olomouc)	Auto-ionization in the presence of a neighbor atom
10:05	W. Glaz (Poznań)	Ab initio vs model extended techniques of computing linear and nonlinear collisional polarizabilities in H ₂ -H supermolecules
10:25	M. Paprzycka (Poznań)	Raman spectroscopy in the investigation of proteins
10:45	K. Grygiel (Poznań)	Anomalous rotational diffusion in optical fields
11:05	A. Miranowicz (Poznań)	Deterministic quantum nonlinear optics without photons
11:25 COFFEE BREAK		
11:45	V. V. Temnov (Le Mans)	Nonlinear magneto-plasmonics and Wood's anomaly probed by magnetic second-harmonic generation
12:10	M. Wiesner (Poznań)	Can surface plasmons break symmetry in topological insulators and graphene?
12:35	V. Vashista (Poznań)	Light channeling, bending and splitting via local modification of interfaces of a photonic-crystal slab
12:50 LUNCH AND POSTER SESSION III		
13:20	T. Lulek (Poznań)	A three-magnon qubit: an example of Galois symmetry of Bethe pseudoparticles
13:40	P. Zieliński (Kraków)	Is a discontinuous phase transition of second order possible in magnetic systems?
14:05	D. Kuźma (Kraków)	Modeling of configuration switching in systems of macrospins
14:30	K. Szulc (Poznań)	Magnetization reversal in the array of nanobars
14:50	P. Sobieszczyk (Kraków)	Magnetization reversal mechanisms in nanopatterned thin films with perpendicular magnetic anisotropy
15:15	J. Rychły (Poznań)	Theoretical studies of spin wave dynamics in planar magnonic quasicrystals
15:35	G. Centala (Poznań)	The effect of spin wave pinning on FMR frequency in periodic structures
15:55	F. Lisiecki (Poznań)	Reprogrammability and scalability of magnonic Fibonacci quasicrystals
16:15 COFFEE BREAK		
16:30	A. Trzaskowska (Poznań)	Periodic nanostructures investigated using BLS
16:55	B. Graczykowski (Poznań)	Elastic properties of few nanometers thick membranes
17:20	N. B. K. Padi (Poznań)	Magnons and phonons in CoFeB/Au multilayer structures
17:40	M. Zdunek (Poznań)	Investigation of magnons and phonons by BLS in bilayer substituted YIG samples

MAGNONICS AND, METAMATERIALS (6 DEC 2018)		
9:05	J. Graefe (Stuttgart)	Nanomagnetism in the X-Ray
9:30	K. V. Guslienکو (San Sebastian)	Magnetic skyrmion stability and dynamics
9:55	M. Zelent (Poznań)	Controlled motion of skyrmions in magnonic antidot lattices
10:15	I. L. Lyubchanskii (Kharkiv)	Goos-Haenchen effect at Brillouin light scattering
10:40	J. W. Klos (Poznań)	Hartman effect for spin waves in exchange regime
11:05	P. Gruszecki (Poznań)	Reflection of spin wave beams
11:25 COFFEE BREAK		
11:40	P. Graczyk (Poznań)	Electric-field-driven enhancement of magnetization dynamics in magnetoelectric heterostructures
12:05	S. Mieszczak (Poznań)	Driving magnetization dynamics in an on-demand magnonic crystal via the magnetoelastic interaction
12:25	G. D. Chaves-O'Flynn (Poznań)	Thermal Stability of Soft Ferromagnetic Nanorings
12:45 COFFEE BREAK AND POSTER SESSION IV		
13:45	Ż. Świątkowska-Warkocka (Kraków)	Laser synthesis of composite magnetic particles
14:10	E. Coy (Poznań)	High temperature magneto dielectric thin films with low magnetic damping
14:35	H. Głowiński (Poznań)	Magnetization damping in polycrystalline CoFe films
CHAIRPERSON		
28 Nov 2018	5 Dec 2018	6 Dec 2018
Adam Miranowicz	Krzysztof Grygiel	Maciej Krawczyk
Ryszard Tanaś	Ryszard Tanaś	Paweł Gruszecki
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