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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:

Quantum Technologies and Nonlinear Optics:

Adam Miranowicz, Krzysztof Grygiel, Karol Bartkiewicz, and Grzegorz Chimczak

Magnonics and Metamaterials:

Jarosław Kłos, Sławomir Mamica, and Paweł Gruszecki

QuTecNOMM'19

15.10–18.11.2019

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

Part II: Magnonics and Metamaterials



foto: Rafał Wojtyniak

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THURSDAY (14 NOV 2019) - room 16		
9:35		Opening
9:40	B. Graczykowski	Nanoscale silicon thermaldiode and switch
10:05	N. Babu	Detection of magnon-phonon interactions using BLS spectroscopy in CoFeB/Au multilayer structure
10:25	M. Zdunek	Interaction between thermal magnons and phonons in $[\text{Ni}_{80}\text{Fe}_{20}/\text{Au}/\text{Co}/\text{Au}]_{10}$ multilayer
10:45	O. Chumak	Strain modulated ferromagnetic resonance technique and it's application for Co_2YZ Heusler thin films investigation
11:05 COFFEE BREAK		
11:20	R. Strzałka	New approach to structural disorder in aperiodic systems – example of decagonal AlCuRh quasicrystal
11:45	S. Mieszczak	Spin wave localization on phasonic defects in magnonic quasicrystal
12:05 LUNCH BREAK		
13:35	G. Chaves-O'Flynn	Activation barriers for creation and annihilation of magnetic droplet solitons
14:00	M. Zelent	Formation and driving by electric current of Neel type skyrmion in antidot lattices
14:20	K. Szulc	Spin-wave diode and circulator
14:40	M. Krawczyk	Spin wave dynamics in complex magnetization textures
15:05 COFFEE BREAK		
15:20	P. Tomczak	Universal FMR procedure to probe magnetic characteristics of ferromagnetic samples
15:45	S. Mamica	Nonuniform softening of spin waves in 2D magnonic crystals
16:10	P. Zieliński	Static configurations and spinwave dynamics in finite magnetic chains: from simplified models to micromagnetic calculations
16:35	T. Lulek	Algebraic Bethe Ansatz as a tool for quantum information processing

FIRDAY (15 NOV 2019) - Kielich's Auditorium		
9:00	J. Walowski	Spin-wave packets triggered by ultrashort laser pulses
9:25	J. Gräfe	Imaging nanoscale spin dynamics using x-ray microscopies
9:50	J. Rychly	1D Fibonacci magnonic quasicrystals – self-similarity of spin wave spectra, spin waves localization, and reprogrammability
10:15 COFFEE BREAK		
10:30	A. Janutka	Magnetoreactance at the nanoscale
10:55	E. Coy	Nanoindentation applications for oxide electronics
11:20	A. Wawro	Spatial ion beam modifications of Co layered structures – a recipe for magnonic crystals
11:45	E. Milińska	Magnetization reversal, domain structure and ferromagnetic resonance of heavy metal/ferromagnetic heterostructures
12:10 LUNCH BREAK		
13:40	R. Gieniusz	Magneto-optical and Brillouin Light Scattering studies of ultrathin Co wedges with Pt and Ir covers
14:05	A. K. Dhiman	Magnetic properties of Ir/Co/Pt and Pt/Co/Ir multilayers with Dzyaloshinskii-Moriya interaction
14:25	J. Kisielewski	Mapping magnetic textures in films with Dzyaloshinskii-Moriya interaction
14:50 COFFEE BREAK		
15:05	M. Werwiński	Magnetocrystalline anisotropy of L10 FeNi from
15:30	P. Rzeszut	Serially connected perpendicular magnetic tunnel junctions for multi-bit STT-MRAM storage cells and neuromorphic computing
15:50	P. Graczyk	Nonresonant amplification of coherent spin waves through voltage-induced interface magnetoelectric effect and spin-transfer torque
16:15	H. Głowiński	Ion bombardment influence on magnetization damping
16:40	P. Kuświk	Local modification of magnetic properties for potential applications in magnonics

MONDAY (18 NOV 2019) - room 16		
9:00	K. Wrześniewski	Quench dynamics of spin in magnetic impurity systems
9:25	K. Załęski	Thin films of Heusler alloy Co_2FeSi on graphene and HOPG – the candidate for highly spin-polarized injector for graphene spintronics
9:50 SHORT BREAK		
10:05	L. Ivzhenko	Experimental and numerical identification of Faraday effect enhancement by allferroelectric metasurface
10:30	M. Gołębiowski	Talbot effect for spin waves
10:50	K. Sobucki	Subwavelength control of the phase of spin waves by ferromagnetic resonators

Abstracts are available at our website:
<https://zfn-qutecnmm.home.amu.edu.pl/magnonics/>

CHAIRMENS		
14 Nov 2019	15 Nov 2019	18 Nov 2019
Stawomir Mielcarek	Paweł Gruszecki	Maciej Krawczyk
Jarosław W. Klos	Joachim Gräfe	Stawomir Mamica
Piotr Zieliński	Hubert Glowński	
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