

FNS2023 Posters

- Tuesday, June 6th; 17:00

Number	Poster title:	Institution, Country	Presenter
p1	Symmetry breaking in a parametrically modulated quantum oscillator	University of Konstanz, Germany	Daniel Boneß
p2	Nonlinear coupled parametrically driven Duffing resonators	University of Konstanz, Germany	Wolfgang Belzig
p3	Ultra-strong coupling between two harmonic oscillators	IISC, India	Soumya Ranjan Das
p4	Flux coupled hybrid electromechanical system with a transmon qubit	IISC, India	Tanmoy Bera
p5	Anomalous parametric amplification of degenerate first mode in micromechanical coupled beam systems	IISC, India	Vishnu Kumar
p6	Anomalous nonlinear features in the self-oscillation regime of microwave optomechanical devices	CNRS, France	Alexandre Delattre
p7	Investigation of the location of tunneling two level systems and the role of normal-state electrons in nanoelectromechanical resonators	CNRS, France	Baptiste Alperin
p8	Exploiting the spin-mechanical coupling between an oscillating membrane and a nitrogen-vacancy center	NBI, Denmark	Evangelia Asproptomiti
p9	Towards spin-optomechanics with nitrogen-vacancy centers in diamond	NBI, Denmark	Felix Hahne
p10	Comparative study of multi-object acoustic levitation trapping algorithms	TU Delft, Netherlands	Frederike Wörtche
p11	Magnetic force microscopy with nanowire resonators	University of Basel, Switzerland	Hinrich Mattiat
p12	Frequency noise in lithium niobate nano-acoustic resonators	Stanford, USA	Matthew Maksymowych
p13	Energy dissipation in 3D-printed polymer micro-resonators	TU Delft, Netherlands	Jikke de Winter
p14	Noems as a platform for non-hermitian phenomena	IISC, India	Sudipta Nayak
p15	Optoacoustic active cooling in waveguides	Max Planck Institutue, Germany	Laura Blazquez
p16	Direct determination of optomechanical photonic crystal mechanical mode profile via quasi near-field perturbation	Université Paris-Saclay, France	Théo Martel
p17	Metamaterials of fluids of light and sound	Instituto Balseiro and Centro Atómico Bariloche , Argentina	Alex Fainstein
p18	On-chip distribution of quantum information using traveling phonons	TU Delft, Netherlands	Amirparsa Zivari
p19	Centimeter-scale nanomechanical resonators with ultralow dissipation	TU Delft, Netherlands	Andrea Cupertino
p20	Modeling the multi-mode nonlinear dynamics of nanomechanical resonators	TU Delft, Netherlands	Ata Keskekler
p21	Fabrication of SiC optomechanical crystals	TUM, Germany	Berke Demiralp
p22	Frequency stabilization of self-sustained oscillations in sideband-driven electromechanical resonator	HKUST, Hong Kong	Boqi Zhang
p23	Disordered coupled parametric oscillators and asymmetric Ising models	HKUST, Hong Kong	Chengxiao Han

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p24	Acoustic spin pumping and the back-action in a phononic crystal cavity	NTT, Japan	Daiki Hatanaka
p25	Transmission line electromechanics	ISTA, Austria	Denise Puglia
p26	Membrane-based nanoMRI	ETH, Switzerland	Diego Visani
p27	Coherent multifrequency microwave measurement for phase-sensitive detection of nanomechanical motion	KTH, Sweden	Ermes Scarano
p28	Dry processing of high Q 3C-silicon carbide nanostring resonators	TUM, Germany	Felix David
p29	Two molecules coupled to a nano-mechanical oscillator	Université de Bordeaux, France	Guillaume Bertel
p30	Strange nonlinearity of nanobeam and generated frequency combs in mechanical modes and harmonics	KAIST, South Korea	Hyunjin Choi
p31	Resonance frequency tracking schemes for micro- and nanomechanical resonators	TU Wien, Austria	Hajrudin Besic
p32	Optomechanical rheology of liquids at gigahertz frequencies	Université de Paris, France	Hamidreza Neshasteh
p33	Fabrication of nanomechanical diamond devices via a scalable smart-cut method	UC Sanata Barbara, USAS	Hyunseok Oh
p34	Probing nanomotion of single bacteria with graphene drums	TU Delft, Netherlands	Irek Roslon
p35	Vacuum gap electromechanical devices with integrated piezoelectric actuator	TU Wien, Austria	Ioan Ignat
p36	Optomechanical coupling of a microwave cavity to a large membrane	TU Delft, Netherlands	Jean-Paul van Soest
p37	Optomechanics of suspended magnetic van der waals materials	Université de Strasbourg, France	Joanna Wolff
p38	Spin detection using ultra-coherent silicon nitride string resonators	ETH, Switzerland	Bhavesht Kharbanda
p39	Nanomechanical absorption spectromicroscopy of individual Au nanorods	TU Wien, Austria	Kostas Kanellopoulos
p40	Fluctuations driven coupled oscillators as a quantum simulator	University of Konstanz, Germany	Lorenzo Bernazzani
p41	Towards strain coupling of nanomechanical motion to quantum dots in GaAs zipper cavities	TU Eindhoven, Netherlands	Matteo Lodde
p42	Dynamical backaction cooling of sideband-unresolved mechanical modes using multimode optomechanical interactions	Amolf, Netherlands	Menno Jansen
p43	Collective dynamics in circuit optomechanical systems	EPFL, Switzerland	Mahdi Chegnizadeh
p44	A phononic frequency comb from a single driven nonlinear nanomechanical mode	TUM, Germany	Maria Kallergi
p45	Real-time measurements of a carbon nanotube electromechanical system hosting a double-quantum dot	ICFO, Spain	Marta Cagetti
p46	Coherent feedback towards light-mediated mechanical self-interactions	University of Basel, Switzerland	Maryse Ernzer
p47	Effect of helium ion implantation on nanomechanical resonators in 3C-SiC	Helmholtz-Zentrum Dresden-Rossendorf, Germany	Nagesh S. Jagtap
p48	Advances in 3D magnetic resonance force microscopy	ETH, Switzerland	Nils Prumbaum
p49	Fluctuating states and non-monotonic nonlinear friction in nanotube oscillators	Università Politecnica delle Marche, Italy	Pierpaolo Belardinelli
p50	Development of continuous sub-mk refrigeration for ground-state cooling of mechanical resonators	CNRS, France	Andrew Fefferman

- **Wednesday, June 7th; 17:00**

Number	Poster title:	Institution, Country	Presenter
p51	Novel nanotube multiquantum dot devices	ICFO, Spain	Roger Tormo Queralt
p52	Thin film device characterization using picosecond ultrasonics	TU Delft, Netherlands	Ruben Guis
p53	Graphene mechanical resonator; electro-mechanical properties and radio application	Ewha Womans University, South Korea	Yugyeong Je
p54	Gallium phosphide 2D optomechanical crystals for deterministic single-photon quantum memories	NBI, Denmark	Sho Tamaki
p55	A voltage-controllable magnetic tip for membrane-based scanning force microscopy	ETH, Switzerland	Shobhna Misra
p56	Mechanical frequency control in inductively coupled electromechanical systems	Walther-Meißner-Institut, Germany	Thomas Luschmann
p57	Tuning nonlinear dynamics of nanomechanical resonators via soft-clamping	TU Delft, Netherlands	Zichao Li
p58	Dynamical backaction evading magnomechanics	TU Delft, Netherlands	Clinton Potts
p59	Dandelion-class phononic membrane resonators	NBI, Denmark	Eric Langman
p60	Mechanical mode imaging of a high-Q hybrid hBN/Si3N4 resonator	University of Basel, Switzerland	Francesco Fogliano
p61	Resolution limits of sensors based on Duffing resonators	TU Delft, Netherlands	Tomás Manzaneque
p62	Toward room-temperature observation of quantum radiation force noise driving a trampoline's motion	ETH, Switzerland	Vincent Dumont
p63	Nanomechanical resonator based on twisted bilayer graphene	ICFO, Spain	Parmeshwar Prasad
p64	Intermodal coupling in two-mode nanostrings	TUM, Germany	Ahmed A. Barakat
p65	Towards nanomechanical detection of fT bio-magnetic fields	University of Hamburg, Germany	Alexander Schwarz
p66	Enhancing the sensitivity of silicon photonic ultrasound sensors by optimizing the stiffness of polymer cladding	TU Delft, Netherlands	Tufan Erdogan
p67	Nonlinear nanomechanical resonators approaching the quantum ground state	ICFO, Spain	Chandan Samanta
p68	Quantum coherent control in pulsed waveguide optomechanics for photon-phonon entanglement via brillouin scattering	Max Planck Institute, Germany	Laura Blazquez
p69	Towards a mechanical qubit in a carbon nanotube	ICFO, Spain	Christoffer Møller
p70	Period tripling states and non-monotonic energy dissipation in MEMS with internal resonance	Penn State University, USA	Daniel Lopez
p71	Tunable frequency comb in flexural-mode-coupling regime in nonlinear mechanical membrane resonators	University of Konstanz, Germany	Fan Yang
p72	Strongly driven spin-mechanical systems for enhanced mechanical sensing	University of Oregon, USA	Hailin Wang
p73	Prospects for a microshell optomechanical resonator	Yale, USA	Jinuk Kim
p74	Linear and nonlinear cavity optomechanics with Niobium-based superconducting nanoelectromechanical systems	Korea Research Institute of Standards and Science,	Jinwoong Cha
p75	Purely quartic nonlinearity in cavity optomechanics	Université de Bordeaux, France	Jonathan L. Wise

Number	Poster title:	Institution, Country	Presenter
p76	Toward nanomechanical probe for Majorana zero modes	Korea Research Institute of Standards and Science,	Junho Suh
p77	A hybrid superconductor/nanomechanical magnetic field detector for biomagnetism	CNR, Italy	Luca Pellegrino
P78	Quantum well exciton polaritons in an disk optomechanical microcavity	Université de Paris, France	M.F. Colombano Sosa
p79	Optical coherent feedback control of a mechanical oscillator	University of Basel, Switzerland	Manel Bosch Aguilera
p80	Study of heat transport in Silicon Nitride nanomechanical resonators for high precision sensing and energy conversion applications	University of Ottawa, Canada	Raphael St-Gelais
p81	135 days of aging measurement on a silicon nitride nanomechanical resonator	University of Ottawa, Canada	Michel Stephan
p82	Mechanical overtone frequency combs	Aalto, Finland	Matthijs de Jong
p83	Electrothermally tunable metal-graphene-silicon nitride membrane mechanical device	University of Konstanz, Germany	Mengqi Fu
p84	High-Q factor complex oxides MEMS resonators from epitaxial thin films	CNR, Italy	Nicola Manca
p85	Har.py: Automatic nano-harp characterization	TUM, Germany	Philipp Bredol
p86	Position-dependent noise characteristics in optomechanical transduction of InP nanowires	TU Wien, Austria	Robert G. West
p87	Conceptually new meters of noise intensity or temperature: exploiting noise-induced transitions in micro/nano-resonators at short time scales and providing a huge range	Lashkaryov Institute of Semiconductor Physics, Ukraine	Stanislav Soskin
p88	A nano-electromechanical quantum simulator	ICFO, Spain	Stefan Forstner
p89	Theory behind the realization of a mechanical qubit	ICFO, Spain	Victor Roman-Rodriguez
p90	High-Q trampoline mechanical resonators in crystalline InGaP with engineered reflectivity	Chalmers, Sweden	Witlef Wieczorek
p91	Scanning microwave microscopy for investigations of mechanical vibrations and mode coupling	IEMN, France	Xin Zhou
p92	Optomechanics with magnetically levitated drops of liquid He-3 and He-4	Yale, USA	Yogesh S. Patil
p93	Design and fabrication of kinetic-inductive electro-mechanical force sensors	KTH, Sweden	August K. Roos
p94	Clamped and sideband-resolved silicon optomechanical crystals	Chalmers, Sweden	Johan Kolvik
p95	Tunable graphene phononic crystals	Freie Universität Berlin, Germany	Yuefeng Yu
p96	Magnetic order in 2D antiferromagnets disclosed by spontaneous anisotropic magnetostriction	TU Delft, Netherlands	Maurits Houmes
p97	Ultra-strong amorphous silicon carbide for nanomechanics	TU Delft, Netherlands	Minxing Xu
p98	Surface-acoustic-wave induction of a giant synthetic hall effect in graphene	University of Hamburg, Germany	Robert H. Blick
p99	Non-magnetic portable probe for characterising mechanic resonators in vacuum at low temperatures	Università degli studi G. d'Annunzio, Italy	Enrico Ragucci
p100	Analysis and interpretation of force volume data acquired with a tuning fork AFM at cryogenic temperatures by using intermodulation products	University of Basel, Switzerland	Marco Zutter
p101	Tension mediated intermodal coupling among mechanical modes of a silicon nitride membrane	IISC, India	Nishta Arora