

FNS2025 Program

3rd June (Tue.)

		9:40 - 9:50	Opening Remarks	
Tu-01	Keynote	9:50 - 10:35	> 30 Y of NEMS ...and yet, frontiers await	Michael Roukes
Tu-02	Invite	10:35 - 11:10	TBA	Amir Safavi-Naeini
		11:10 - 11:40	Coffee Break	
Tu-03	Oral	11:40 - 12:05	Superconducting Casimir forces on a chip: achieving ultimate parallelism with STM readout	Richard Norte
Tu-04	Oral	12:05 - 12:30	Measurement of the Casimir force between superconductors	Matthijs Hendrik Jan de Jong
		12:30 - 14:00	Lunch	
Tu-05	Keynote	14:00 - 14:45	Quantum physics with individual acoustic phonons	Andrew N. Cleland
Tu-06	Invite	14:45 - 15:20	Preparation and characterization of non-Gaussian quantum states of motion in a mechanical resonator	Matteo Fadel
Tu-07	Oral	15:20 - 15:45	Superconducting circuit optomechanics: from high-coherence to quantum collective dynamics	Mahdi Chegnizadeh
		15:45 - 16:15	Coffee Break	
Tu-08	Oral	16:15 - 16:40	Quantum squeezing of an optically levitated nanoparticle	Massimiliano Rossi
Tu-09	Oral	16:40 - 17:05	A levitated photoacoustic sensor	Letizia Catalini
Tu-10	Oral	17:05 - 17:30	Feedback cooling of high-Q magnetically-levitated resonator for ultraprecise accelerometry	Shilu Tian
		17:30 - 19:30	Poster	

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4th June (Wed.)

We-01	Invite	9:20 - 9:55	Bacterial nanomotion and synchronization probed by micromechanical devices	Farbod Alijani
We-02	Oral	9:55 - 10:20	Detecting gravity at the milligram scale using optomechanics	Matthew Herbst
		10:20 - 10:50	Cofee Break	
We-03	Invite	10:50 - 11:25	Superfluid-coated nanophotonics: nonlinear waves and solitons	Warwick Bowen
We-04	Invite	11:25 - 12:00	Nonlinear fluid flows and mass spectrometry using nanomechanical devices	John Sader
We-05	Oral	12:00 - 12:25	Spin-driven nanomotor	Wataru Izumida
		12:30 - 14:00	Lunch	
We-06	Invite	14:00 - 14:35	Hybrid magnon-phonon crystals	Yoshichika Otani
We-07	Invite	14:35 - 15:10	The coupling constants of magnons and acoustic phonons in magnetic nanostructures	Masamitsu Hayashi
We-08	Oral	15:10 - 15:35	Ferromagnetic 2D membrane resonators: from thermodynamics to topological spin textures	Timofei Savilov
		15:35 - 16:05	Cofee Break	
We-09	Invite	16:05 - 16:40	Multimode coupling and nonlinear dynamics in coupled double-drum resonators	Xin Zhou
We-10	Oral	16:40 - 17:05	Towards large networks of mechanical parametric oscillators	Vincent Dumont
We-11	Oral	17:05 - 17:30	Programmable optomechanical circuits	Xiaofei Guo
		17:30 - 19:30	Poster	

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5th June (Thu.)

Th-01	Invite	9:20 - 9:55	Cavity and two-level system optomechanics in strong coupling	Fabio Pistoiesi
Th-02	Invite	9:55 - 10:30	Knots, non-abelian braids, and geometric phases in non-hermitian systems	Yogesh Patil
		10:30 - 11:00	Cofee Break	
Th-03	Invite	11:00 - 11:35	Optomechanical nonlinearity and nanomechanical self-oscillation in cavity electromechanical system	Junho Suh
Th-04	Oral	11:35 - 12:00	Synthetic Kuramoto potential in an optomechanical resonator	Motoki Asano
Th-05	Oral	12:00 - 12:25	Slow buildup of self-sustained oscillations in a sideband-driven electromechanical resonator	Pak Yin Chan
		12:30 - 14:00	Lunch	
Th-06	Invite	14:00 - 14:35	A method for improving oscillator frequency stability using feedback-controlled amplitude and phase	Oriel Shoshani
Th-07	Oral	14:35 - 15:00	Suppressing mechanical noise in an optomechanical cavity with a tunable Kerr nonlinearity	Sarah Meilof
Th-08	Oral	15:00 - 15:25	Low temperature fluctuations of a mesoscopic mechanical mode	Alexandre Delattre
		15:25 - 15:55	Cofee Break	
Th-09	Invite	15:55 - 16:30	TBA	Dana Weinstein
Th-10	Oral	16:30 - 16:55	Laser micromachining of silicon nitride trampolines operating at the fundamental temperature fluctuation-noise limit	Raphael St-Gelais
Th-11	Oral	16:55 - 17:20	Ultrathin rippled materials with non-Hookean mechanical properties.	Daniel Lopez
		19:15 - 21:15	Workshop Dinner	

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6th June (Fri.)

Fr-01	Invite	9:20 - 9:55	Nonlinearities in mechanical resonators at the zero-point motion level	Adrian Bachtold
Fr-02	Oral	9:55 - 10:20	Investigation of phase diffusion in a single driven nonlinear nanomechanical mode	Maria Kallergi
Fr-03	Oral	10:20 - 10:45	Characterization of nonlinear damping and noise squeezing by sideband measurements	Mengqi Fu
		10:45 - 11:15	Cofee Break	
Fr-04	Invite	11:15 - 11:50	The response of graphene resonators to a multifrequency coherent drive and to modulated boundary conditions	Joel Moser
Fr-05	Oral	11:50 - 12:15	hBN optomechanically induced transparency, gain and frequency combs	Francesco Fogliano
Fr-06	Oral	12:15 - 12:40	High-quality-factor viscoelastic nanomechanical resonators from moiré superlattice	Xin Zhang
		12:40 - 14:00	Lunch	
Fr-07	Invite	14:00 - 14:35	The topology of driven-dissipative nonlinear resonators	Oded Zilberberg
Fr-08	Oral	14:35 - 15:00	Hypersonic phonon propagation at 2GHz in a non-trivial topological phononic waveguide	Clivia Sotomayor Torres
Fr-09	Invite	15:00 - 15:35	Quantum and topological phononics with ultrasound waves on a chip	Albert Schliesser
		15:35 -	Closing Remarks	