

PHYSICS AND APPLICATIONS OF SUPERCONDUCTING MICRORESONATORS

THIRD ANNUAL WORKSHOP

JANUARY 21-22, 2010 + UNIVERSITY OF CALIFORNIA SANTA BARBARA



Wed, January 20: *Optional* Open Source Readout Tutorial in Broida 3509 (Mazin's Lab)

Time	Presenter	Title
9:00	Ben Mazin	Welcome and Overview of the Open Source Readout
9:30	Ran Duan	ADC and DAC test results, Single Stage Channelizer
10:30	Bruno Surfass	Two Stage Channelizer
11:15	Sean McHugh	Client/Server Data Transfer
12:00		Lunch
1:30	Group	Firmware development with Matlab Simulink and the CASPER tools

Thursday, January 21: Physics of Superconducting Microresonators in Elings Hall 1601

Time	Presenter	Title
8:30	Mazin	Welcome
8:45	Zmuidzinas	Introduction to Microwave Kinetic Inductance Detectors
9:30	Martinis	Microwave Resonators for Qubits
10:15		Break
10:45	Fuchs	Broadband coplanar waveguides for high-speed resonant spin manipulation in diamond
11:10	Barends	Quality factors at the single microwave photon level in superconducting resonators
11:35	Wang	Improving the Coherence Time of Superconducting Coplanar Resonators
12:00	Vion	Investigating a Nonlinear Resonator Coupled to a Josephson qubit
12:25		Lunch
1:30	Bumble	High resistivity MKID resonators
1:55	Sage	High Q superconducting resonators
2:25	Mazin	Amorphous Silicon Microstrip MKIDs
2:45	Riesbeck	OMNISYS digital readout electronics
3:10		Break
3:40	Pappas	Dielectric Loss Studies of Insulators Deposited on $\frac{1}{4}$ Wave Resonators
4:05	De Visser	Effects of readout heating in KIDs on membranes

Friday, January 22: Applications of Superconducting Microresonators in Elings Hall 1601

Time	Presenter	Title
8:55	Doyle	A Review of Lumped Element Kinetic Inductance Detectors
9:20	Merrill	Optical MKID Arrays
9:45	Moore	Lumped Element MKID Dark Matter Detectors
10:10		Break
10:40	Monfardini	NIKA: the Neel IRAM KIDs Array
11:05	Roesch	Development, fabrication and characterization of Lumped Element KIDs for NIKA
11:30	Baselmans	A lens-antenna coupled Kinetic Inductance Detector array for mm, sub-mm and THz astronomy
11:55	Mates	Measurement of Transition-Edge Sensors Using SQUID-coupled Microwave Resonators
12:20		Lunch
1:30	Maloney	MUSIC: Multiwavelength Submillimeter Inductance Camera
1:55	Czaron	Optimizing MKID Signal to Noise via Readout Technique
2:20	Wollack	MKID Structures for Sub-millimeter Astronomy
2:45	Karasik	Nano-HEB array with MSQUID readout
3:10	Noroozian	Far-IR MKID Arrays
		Break
4:00	Swenson	A digital readout platform for frequency-multiplexed superconducting resonators
4:25	McHugh	Open Source Resonator Readout
4:50	Mazin	Closing and Lab Tours