

Poster Sessions

SQUID 2

Chairperson: Yoshimi Hatsukade (Kindai University)

EDP1-1 14:00–16:00

Defect detection of pipes using ultrasonic guided wave and HTS-SQUID

*Natsuki Masutani, Shouta Teranishi, Ken Masamoto, Shouya Kanenaga, Yoshimi Hatsukade

Kindai University

EDP1-2 14:00–16:00

Vector Scanning SQUID system for High Spatial Resolution

*THE DANG VU^{1,2}, Thanh Huy Ho^{1,2}, Shigeyuki Miyajima¹, Hiroaki Shishido^{1,3}, Masaaki Maezawa⁴, Mutsuo Hidaka⁴, Masahiko Hayashi⁵, Takekazu Ishida^{1,3}

1. Department of Physics and Electronics, Osaka Prefecture University; 2. University of Sciences, Vietnam National University HCMC, VietNam; 3. Institute for Nanofabrication Research, Osaka Prefecture University; 4. National Institute of Advanced Industrial Science and Technology; 5. Faculty of Education and Human Studies, Akita University

EDP1-3 14:00–16:00

Ultra-low Field SQUID-NMR using LN₂ Cooled Cu Polarizing Field coil

*Kazuma Demachi, Satoshi Kawagoe, Seiichiro Ariyoshi, Saburo Tanaka

Toyohashi University of Technology

EDP1-4 14:00–16:00

2D-MPI System using HTS-SQUID

*Kazuya Kobayashi, Yusaku Sanada, Seiichiro Ariyoshi, Saburo Tanaka

Toyohashi University of Technology

EDP1-5 14:00–16:00

Investigation of readout coil for performance improvement of high-T_c rf-SQUID

*Yuji Miyato

Osaka University

Device systems 2

Chairperson: Masamitsu Tanaka (Nagoya University)

EDP2-1 14:00–16:00

Experimental and simulation results of a symmetrical pad to reduce a stray ground current in superconducting integrated circuits

*Hideo Suzuki, Tomohiro Ono, Nobuyuki Yoshikawa

Yokohama National University

EDP2-2 14:00–16:00

Simulation and Measurement of Influence of Flux Quantum Trapped in Moat on Superconducting Circuit

*Hibiki Imai, Yuki Yamanashi, Nobuyuki Yoshikawa

Yokohama National University

EDP2-3 14:00–16:00

Design and Evaluation of Adiabatic-Quantum-Flux-Parametron Autocorrelators for Submillimeter-Wave Spectrometry

*Saki Kobako, Yuki Yamanashi, Nobuyuki Yoshikawa

Yokohama National University

EDP2-4 14:00–16:00

High-Speed Superconductive Decimation Filter for Sigma-Delta Analog to Digital Converter

*Tomu Wakamatsu, Yuki Yamanashi, Nobuyuki Yoshikawa

Yokohama National University

EDP2-5 14:00–16:00

Evaluation of Bit Error Probabilities for an Integrated Quantum Voltage Noise Source for Johnson Noise Thermometry

*Takahiro Yamada, Masaaki Maezawa, Chiharu Urano

National Institute of Advanced Industrial Science and Technology

EDP2-6 14:00–16:00

Implementation of a Double-Active-Layered AQFP Cell Library Using Double Gate Process

*Takumi Ando¹, Naoki Tsuji¹, Fumihiro China¹, Naoki Takeuchi^{2,3}, Shuichi Nagasawa⁴, Mutsuo Hidaka⁴, Yuki Yamanashi^{1,2}, Nobuyuki Yoshikawa^{1,2}

1. Department of Electrical and Computer Engineering, Yokohama National University; 2. Institute of Advanced Sciences, Yokohama National University; 3. PRESTO, Japan Science and Technology Agency; 4. National Institute of Advanced Industrial Science and Technology

EDP2-7 14:00–16:00

Implementation of a Look-Up Table Based on Phase Shift Elements and Dual-Rail SFQ Circuits

*Soya Taniguchi^{1,2}, Hiroshi Ito¹, Takuya Kurihara¹, Masamitsu Tanaka¹, Hiroyuki Akaike¹, Akira Fujimaki¹

1. Nagoya University; 2. JSPS Research Fellow

EDP2-8 14:00–16:00

A random access memory cell using quantum flux parametron

*Hiroshi Takayama¹, Naoki Tsuji¹, Naoki Takeuchi^{2,3}, Yuki Yamanashi^{1,2}, Nobuyuki Yoshikawa^{1,2}

1. Department of Electrical and Computer Eng., Yokohama National University; 2. Institute of Advanced Sciences, Yokohama National University; 3. PRESTO, Japan Science and Technology Agency

Detectors 2

Chairperson: Masashi Ohno (The University of Tokyo)

EDP3-1 14:00–16:00

THz detection using Substrate Absorption Type STJ with Position Resolution

*Masahiko Sone¹, Naoki Igarashi¹, Masato Naruse¹, Hiroaki Myoren¹, Yoshiaki Sasaki², Chiko Otani², Tohru Taino¹

1. Saitama University; 2. RIKEN

EDP3-2 14:00–16:00

Development of large-scale array of superconducting detectors for the CMB polarization measurement

*Ryo Koyano¹, Munehisa Semoto¹, Satoru Mima², Kenji Kiuchi², Masato Naruse¹, Hiroaki Myoren¹, Chiko Otani^{2,3}, Osamu Tajima⁴, Shugo Oguri⁴, Tohru Taino¹

1. Saitama University; 2. RIKEN; 3. Tohoku University; 4. KEK

EDP3-3 14:00–16:00

Development of STJ for neutron detector on Si-LBO hybrid substrate by surface-activated room-temperature bonding

*So Endo¹, Go Fujii², Masahiro Ukibe², Hideki Takagi², Masataka Ohkubo², Masato Naruse¹, Hiroaki Myoren¹, Chiko Otani³, Tohru Taino¹

1. Saitama University; 2. AIST; 3. RIKEN

EDP3-4 14:00–16:00

Fabrication method of superconducting TSV for STJ detector using 3D integration technique

*Kohei Morita¹, Soki Hatakeyama¹, Masahiro Aoyagi², Masato Naruse¹, Hiroaki Myoren¹, Tohru Taino¹

1. Saitama University; 2. AIST

EDP3-5 14:00–16:00

Development of LEKID detectors for Light Dark Matter Searches using Liquid

Helium

*Yosuke Kida¹, Hirokazu Ishino¹, Atsuko Kibayashi¹, Yosuke Yamada¹, Kunimoto Komatsu¹, Naoto Hidehira¹, Masashi Hazumi², Nobuaki Sato², Satoshi Kohjiro³, Hirotake Yamamori³, Fuminori Hirayama³

1. Department of Physics, Okayama University; 2. Institute of Particle and Nuclear Studies, High Energy Accelerator Research Organization (KEK); 3. Nanoelectronics Research Institute, National Institute of Advanced Industrial Science and Technology

EDP3-6 14:00–16:00

Combined operation of two TESs for low-energy photon applications

*Hiroyuki Takahashi, Yuki Mitsuya, Taisei Fujimori, Masashi Ohno

The University of Tokyo

EDP3-7 14:00–16:00

Stress Control of Reactively Sputtered Thick NbN Film on Si Wafer Changing the Location of the Substrate Si Wafer Against the Nb Target on a Magnetron Cathode

*Yasuhiro Suzuki¹, Nobuhiro Iguchi¹, Kazuhiro Adachi¹, Tatsumi Hioki¹, Akihisa Ichiki¹, Tomoyoshi Motohiro¹, Che-Wei Hsu², Shinya Kumagai², Minoru Sasaki²

1. Institutes of Innovation for Future Society, Graduate School of Engineering, Nagoya University; 2. Graduate School of Engineering, Toyota Technological Institute

EDP3-8 14:00–16:00

Capacitance Measurements of Niobium SIS Junctions at Microwave Frequencies

*Konomi Sato¹, Takafumi Kojima², Matthias Kroug², Takeshi Sakai¹ and Yoshinori Uzawa²

1. The University of Electro-Communications; 2. National Astronomical Observatory of Japan; 3. National Institute of Information and Communications Technology

Device physics 2

Chairperson: Naoto Sekiya (University of Yamanashi)

EDP4-1 14:00–16:00

Simulations of chaos generation from Josephson junctions with various junction parameters

*Ryo Hiwatashi, Yukihide Tamura, Hisashi Shimakage

Ibaraki University

EDP4-2 14:00–16:00

Evaluation of detectable angle of mid-infrared slot antennas

*Ryosuke Obara¹, Junsei Horikawa², Hisashi Shimakage¹, Akira Kawakami³

1. Ibaraki Univ.; 2. NIT, Fukui Col.; 3. NICT

EDP4-3 14:00–16:00

Calculations of superconducting parametric amplifiers performances

*Takashi Goto¹, Hisashi Shimakage¹, Shingo Saito², Masanori Takeda³

1. Ibaraki University; 2. National Institute of Information and Communications Technology;
3. Shizuoka University

EDP4-4 14:00–16:00

Optical Design of Linearity Measurement System for Superconducting SIS Mixer on Millimeter Band Atmospheric Spectrometer

*Naoki Akiyama¹, Tac Nakajima¹, Akira Mizuno¹, Tomoo Nagahama¹, Kazuji Suzuki¹, Yasunori Fujii²

1. Institute for Space-Earth Environmental Research (ISEE), Nagoya University; 2. Advanced Technology Center, National Astronomical Observatory of Japan

EDP4-5 14:00–16:00

Design of compact high pole HTS tri-band bandpass filters

*Takahiro Unno, Naoto Sekiya

University of Yamanashi

EDP4-6 14:00–16:00

Design of high quality factor spiral coil using double-side REBCO wire for RF applications

*Yuki Monjugawa, Naoto Sekiya

University of Yamanashi

EDP4-7 14:00–16:00

Development of High- T_c Superconducting Terahertz Emitter

*Takanari Kashiwagi^{1,2}, Hiroyuki Kubo¹, Kazuki Sakamoto¹, Takumi Yuasa¹, Yuki Tanabe¹, Chiharu Watanabe¹, Takuya Katsuragawa¹, Taiga Tanaka¹, Yuki Komori¹, Ryusei Ota¹, Genki Kuwano¹, Kento Nakamura¹, Manabu Tsujimoto^{1,2}, Takashi Yamamoto³, Ryozo Yoshizaki^{1,2}, Hidetoshi Minami^{1,2}, Kazuo Kadowaki^{1,2}

1. Graduate School of Pure and Applied Sciences, University of Tsukuba, Japan; 2. Division of Materials Science, Faculty of Pure and Applied Sciences, University of Tsukuba, Japan; 3. Institute for Materials Research (IMO), Hasselt University, Belgium

EDP4-8 14:00–16:00

***I-V* characteristics and THz radiation properties of Bi2212 mesas**

*Akinobu Irie, Yoshihiko Yajima, Takashi Watanabe, Kazuhiro Yamaki

Utsunomiya University