

# Gunma Univ. Kobayashi group go everywhere !

- 2010年 マレーシア クアラルンプール

IEEE Asia Pacific Conference on Circuits and Systems,  
Kuala Lumpur, Malaysia (Dec. 2010).

- [1] Takuya Yagi, Kunihiro Usui, Tatsuji Matsuura, Satoshi Uemori, Yohei Tan, Satoshi Ito, [Haruo Kobayashi](#), “[Background Calibration Algorithm for Pipelined ADC with Open-Loop Residue Amplifier using Split ADC Structure](#),”
- [2] Tomohiko Ogawa, [Haruo Kobayashi](#), et. al.,  
“[Non-binary SAR ADC with Digital Error Correction for Low Power Applications](#),”
- [3] [Satoshi Ito](#), et. al.,  
“[Stochastic TDC Architecture with Self-Calibration](#),”
- [4] Tomohiko Ogawa, Haruo Kobayashi, [Youhei Tan](#), et. al.,  
“[SAR ADC That is Configurable to Optimize Yield](#),”
- [5] [Satoshi Uemori](#), et. al.  
“[ADC Linearity Test Signal Generation Algorithm](#),”
- [6] [Kenji Takahashi](#), et. al.  
“[Single Inductor DC-DC Converter with Bipolar Outputs using Charge Pump](#),”



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- 2008年12月 中国 澳門（まかお）

IEEE Asia Pacific Conference on Circuits and Systems, Macao, China, Dec. 2008.

[1] Tomohiko Ogawa, et. al.,

"[SAR ADC Algorithm with Redundancy](#)", [IEEE Xplore](#)

[2] Akihiro KANB, et. al.,

"[New Architecture of Envelope Tracking Power Amplifier for Base Station](#)" [IEEE Xplore](#)

[3] Ibuki MORI, et. al.,

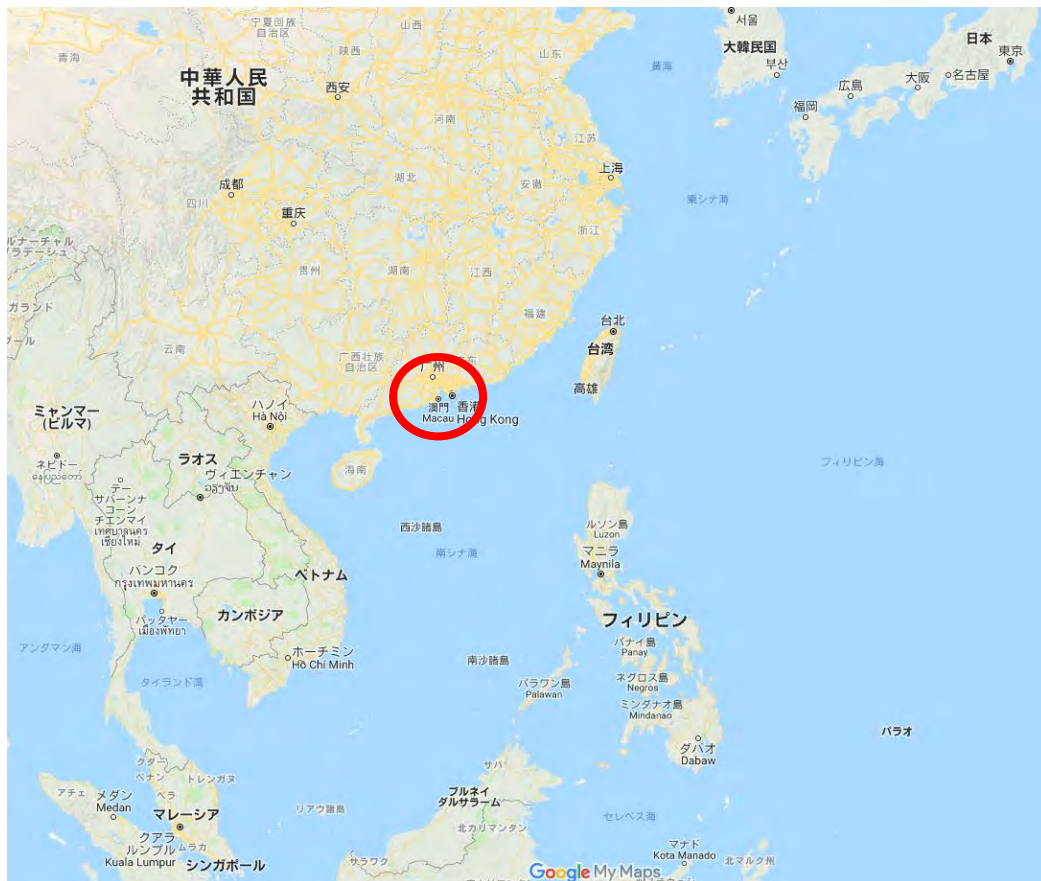
"[High-Resolution DPWM Generator for Digitally Controlled DC-DC Converters](#)",  
[IEEE Xplore](#)

[4] Hajime Konagaya, et. al.,

"[Delta-Sigma AD Modulator for Low Power Application](#)", [IEEE Xplore](#)

[5] [Santhos Ario Wibowo](#), et. al.,

"[Analysis of Coupled Inductors for Low-Ripple Fast- Response Buck Converter](#)",  
[IEEE Xplore](#)





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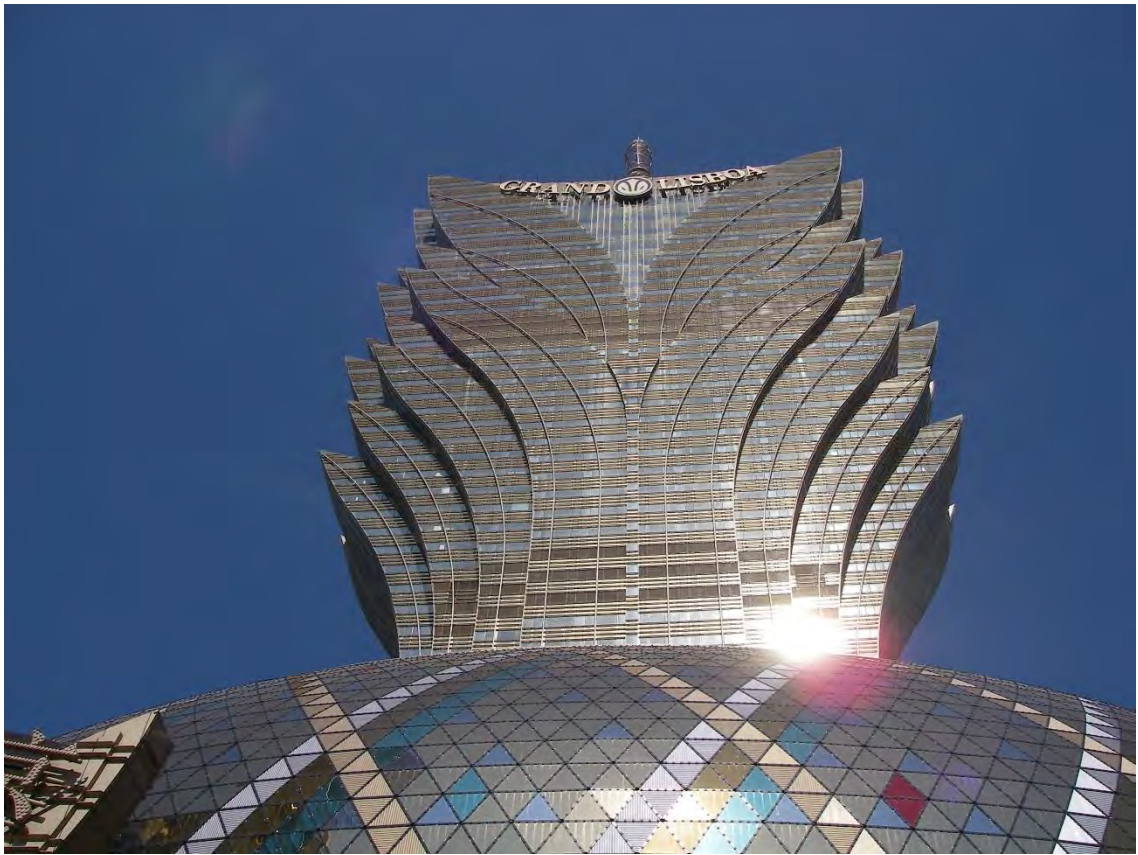
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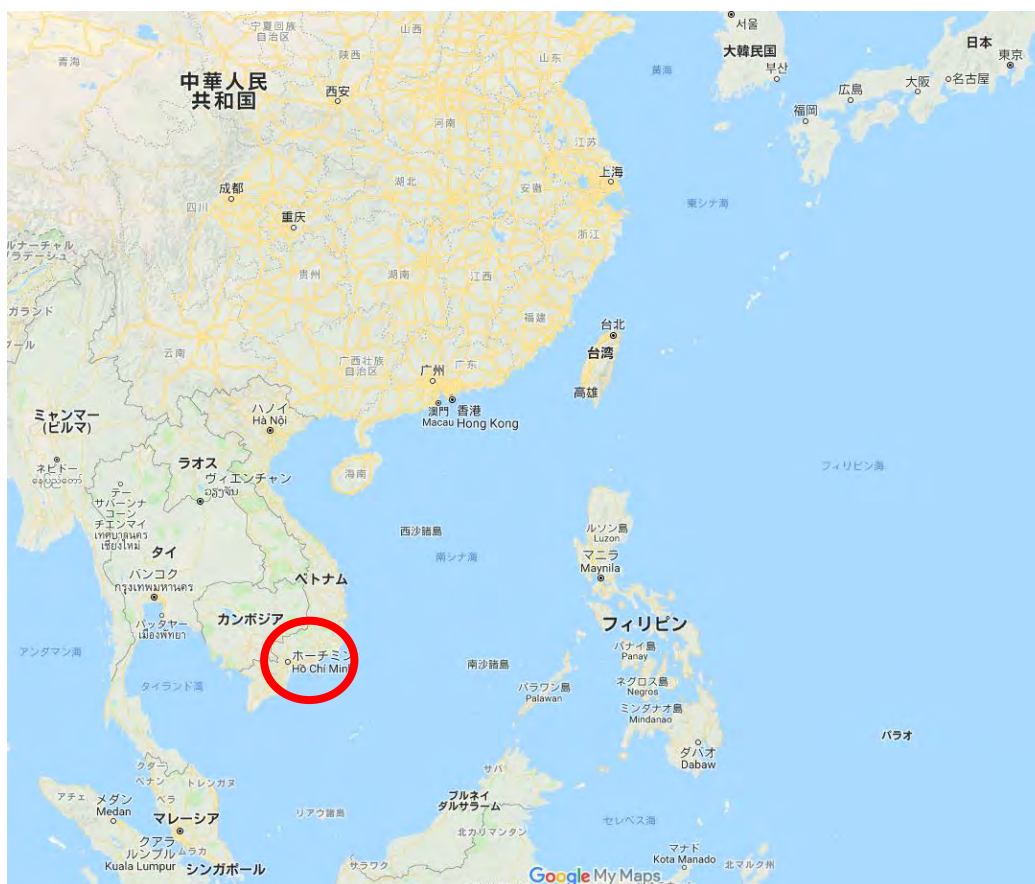


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## ● 2013年11月 ベトナム ホーチミン市

4th IEICE International Conference on Integrated Circuits Design and Verification,  
Ho Chi Minh City, Vietnam (Nov. 15-16, 2013).

- [1] [Shu Wu](#), et. al., “[Design of a Simple Feed-Forward Controller for DC-DC Buck Converter](#).”
- [2] [Zachary Nosker](#), et. al. “[A Single Supply Bootstrapped Boost Regulator for Energy Harvesting Applications](#)”
- [3] [Yukiko Arai](#), et. al., “[Noise-Shaping Cyclic ADC Architecture](#)”
- [4] [Satoru Kawauchi](#), et. al., “[A Power-Efficient Noise Canceling Technique Using Signal-Suppression Feed-forward for Wideband LNAs](#)”
- [5] Yusuke Osawa, et. al., “Phase Noise Measurement and Testing with Delta-Sigma TDC”
- [6] [M. Murakami](#), et. al., “Study of Complex Multi-Bandpass  $\Delta\Sigma$  Modulator for I-Q Signal Generation”
- [7] [Takayuki Negishi](#), et. al., “[Automatic Synthesis of Comparator Circuit Using Genetic Algorithm](#)”
- [8] [Ramin Khatami](#), et. al., “[Delta-Sigma Digital-to-Time Converter and its Application to SSCG](#)”
- [9] [S. Tanaka](#), et. al., “[Single Inductor Multi Output DC-DC Converter Design with Hysteresis Control](#)”
- [10] [Shaiful Nizam MOHYAR](#), et. al., “[SFDR Improvement Algorithms for Current-Steering DACs](#)”
- [11] [Hitoshi Aoki](#), Haruo Kobayashi, “Typical n-MOSFET Modeling using A Skewing Method”



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## ● 2006年11月 中国 杭州

[1] [H. San, et. al., "A Multibit Complex Bandpass Delta Sigma AD Modulator with I, Q Dynamic Matching and DWA Algorithm"](#)

IEEE Asian Solid-State Circuits Conference, Hangzhou, China (Nov. 2006)

[2] M. Hotta, et. al., "[SAR ADC Architecture with Digital Error Correction](#)",

IEEJ International Analog VLSI Workshop, Hangzhou, China (Nov.2006).

[3] Y. Kobori, et. al.,

["A New Control Method for Buck-Boost DC-DC Converters Using PWM and Delta-Sigma Modulation for Mobile Equipment,"](#)

IEEJ International Analog VLSI Workshop, Hangzhou, China (Nov. 2006).

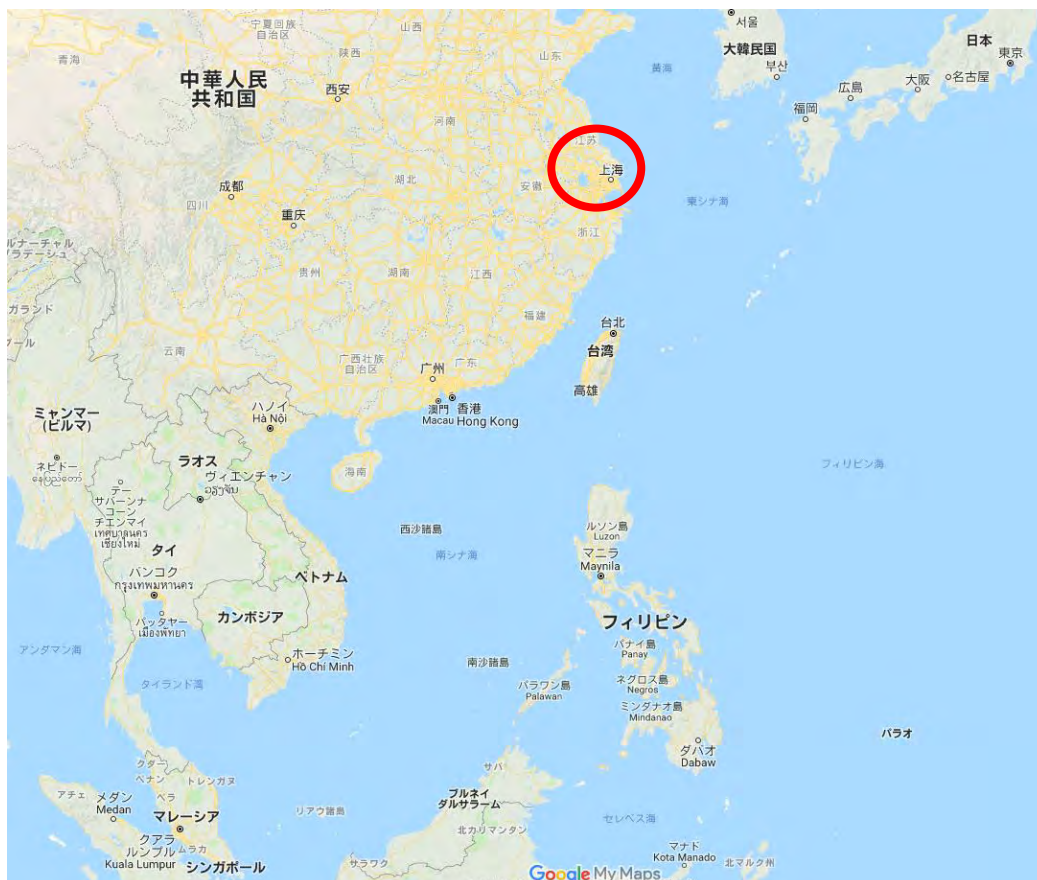
[4] M. Kono, et. al., "[A High-Precision AC Wheatstone Bridge Strain Gauge](#)",

IEEJ International Analog VLSI Workshop, Hangzhou, China (Nov. 2006).

[5] H. San, et. al.,

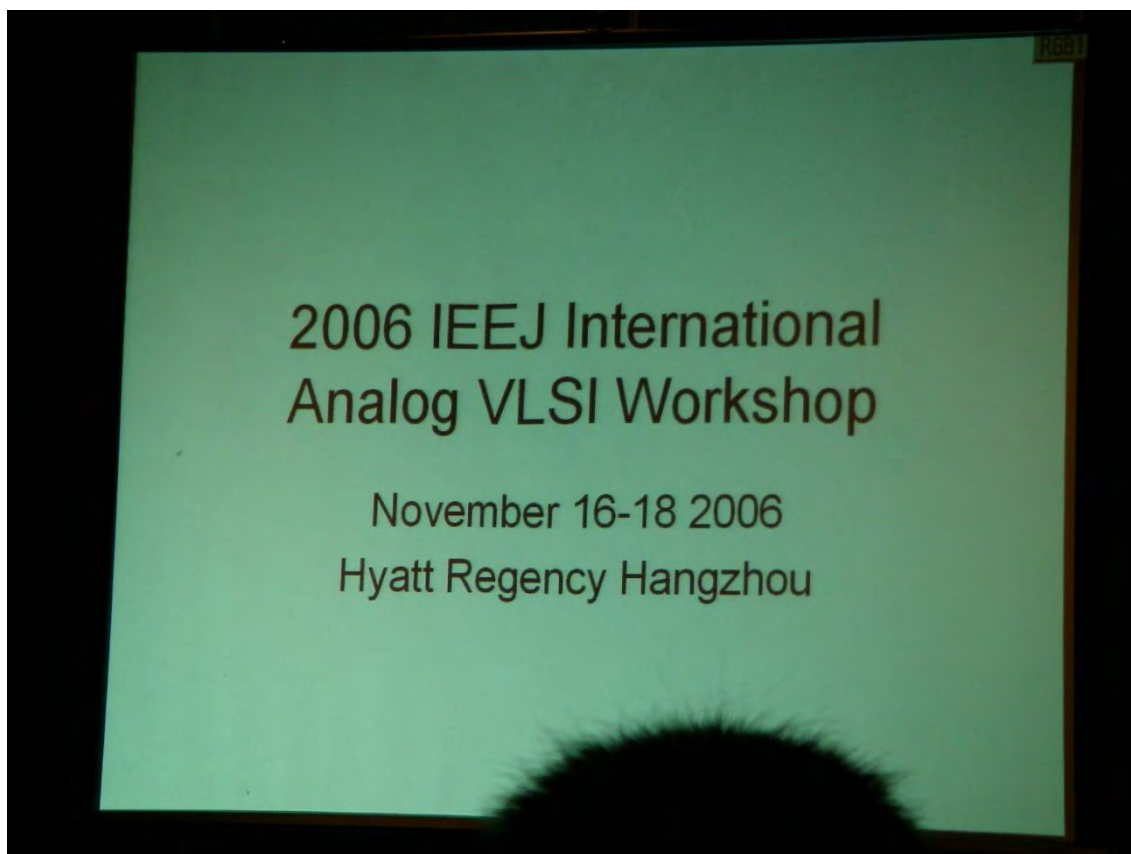
["DWA Algorithms for Multibit Complex Bandpass  \$\Delta\Sigma\$  AD Modulators of Arbitrary Signal Band,"](#)

IEEJ International Analog VLSI Workshop, Hangzhou, China (Nov.2006).





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2006 IEEJ Int'l Analog VLSI Workshop

DWA Algorithms for  
Multibit Complex Bandpass  
 $\Delta\Sigma$  AD Modulators  
of Arbitrary Signal Band

*Hao SAN*  
*Hiroyuki HAGIWARA*  
*Atsushi MOTOZAWA*  
*Haruo KOBAYASHI*  
Dept. of Electronic Engineering  
Gunma University

A presentation slide with a light green background. The title is "DWA Algorithms for Multibit Complex Bandpass  $\Delta\Sigma$  AD Modulators of Arbitrary Signal Band". The authors listed are Hao SAN, Hiroyuki HAGIWARA, Atsushi MOTOZAWA, and Haruo KOBAYASHI, all from the Dept. of Electronic Engineering at Gunma University. On the left side, there is a logo consisting of a triangle with the word "Analog" written inside it. At the bottom of the slide, there is a blue wavy line and a yellow pencil pointing towards it.

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**Analog VLSI Workshop 2006 Paper Session Final Program**

Thursday, November 16, 2006

Time	Paper Title	Author
09:30	Opening	
09:40 (schedule revised)	A New Background Calibration Method Using Noise Shaping for Precise Mismatch Detection of a Pipeline	Yoshimasa Serizawa, et al. (Hosei University)
10:00 (schedule revised)	SAR ADC Architecture with Digital Error Correction	Masao Hotta, et al. (Musashi Institute of Technology)
10:20 (schedule revised)	A Two-path Fourth-order Bandpass Delta-Sigma Modulator with Reduced Number of Opamps	Naoya Waki, et al. (Tokyo University of Science)
10:40	Coffee Break	
11:00	Optimized Integrated Building Blocks for a Charge Pump Circuit	Lian Duan, et al. (Nanyang Technological University)
11:20	Predictive Reverse Current Stopping Technique for Synchronous Rectifiers in DC-DC Converters	Kouhei Yamada, et al. (Fuji Electric Advanced Technology Co., Ltd)
11:40	A New Control Method for Buck-Boost DC-DC Converters Using Dual-Sigma-Delta Modulation for Mobile Equipment Applications	Yasunori Kobori, et al. (Gunma University)
12:00	Lunch	
13:20	DWA Algorithms for Multibit Complex Bandpass $\Delta\Sigma$ Modulators of Arbitrary Signal Band	Hao San, et al. (Gunma University)
13:40	Design of Delta-Sigma Modulators with Comparator-Based Switched-Capacitor Gain Stages	Massoud Momeni, et al. (Darmstadt University of Technology)
14:00	A Low-Power $\Sigma\Delta$ Stereo Audio Class D $\Sigma\Delta$ 2nd Order $\Sigma\Delta$	Takeshi Anzai, et al. (Texas Instruments)
14:20 (schedule revised)	Level Multi-bit Delta-Sigma-ADC	Japan Limited, Atsugi Technology Center
14:40	Coffee Break	
15:00	A High-Speed CMOS Blue-Laser Diode Driver for Multi-Speed HD-DVD System	Shuaiqi Wang, et al. (Waseda University)
15:20	An Analog BioCMOS LSI Circuit for the Electrical Detection of Biomolecular Charges with Extended Gate MOSFET Cells	Kazuo Nakazato, et al. (Nagoya University)
15:40	A Biphasic Current Stimulus Circuit for an Implantable Retinal Prosthetic Device	Jsung-chieh Tseng, et al. (National Dong Hwa University)
16:00	A High-Precision AC Wheatstone Bridge Strain Gauge	Masashi Kono, et al. (Gunma University)
16:20	Short Break	
16:40	A Gate-Current Model for Advanced MOSFET Technologies Implemented into HSPICE	Ryosuke Inagaki, et al. (Waseda University and STARC)
17:00	An Effective Implementation of the Compound Element Pseudo-Transient Algorithm on SPICE3	Hong Yu, et al. (IPS and Waseda University)
17:20	A Globally Convergent Method for Finding DC Solutions of MOS Transistor Circuits	Kazutoshi Sako, et al. (Waseda University)



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## ● 2012年12月 台湾 高雄

IEEE Asia Pacific Conference on Circuits and Systems, Kaohsiung, Taiwan (Dec. 2012).

[1] [Guanglei Jin](#), et. al., "[Digitally-Contolled Gm-C Bandpass Filter](#)"

[2] Satoshi Uemori, Masamichi Ishii, Haruo Kobayashi, Yuta Doi, Osamu Kobayashi, Tatsuji Matsuura, Kiichi Niitsu, [Yuta Arakawa](#), et. al.,

“[Multi-bit Sigma-Delta TDC Architecture with Self-Calibration](#)”,

[3] Yasunori Kobori, Qiulin Zhu, [Murong Li](#), et. al.,

“[Single Inductor Dual Output DC-DC Converter Design with Exclusive Control](#)”,

[4] Hong Gao, Lin Xing, Yasunori Kobori, [Zhao Feng](#), et. al.,

“[DC-DC Converter with Continuous-Time Feed-Forward Sigma-Delta Modulator Control](#)”



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- 2011年11月 韓国 濟州島

[7] [Kiichi Niitsu](#), et. al.,

"An On-Chip Timing Jitter Measurement Circuit Using a Self-Referenced Clock and A Cascaded Time Difference Amplifier with Duty-Cycle Compensation "  
IEEE Asian Solid-State Circuits Conference (A-SSCC 2011), Jeju, Korea (Nov. 2011).

[8] Masato Sakurai, Kiichi Niitsu, et. al.,

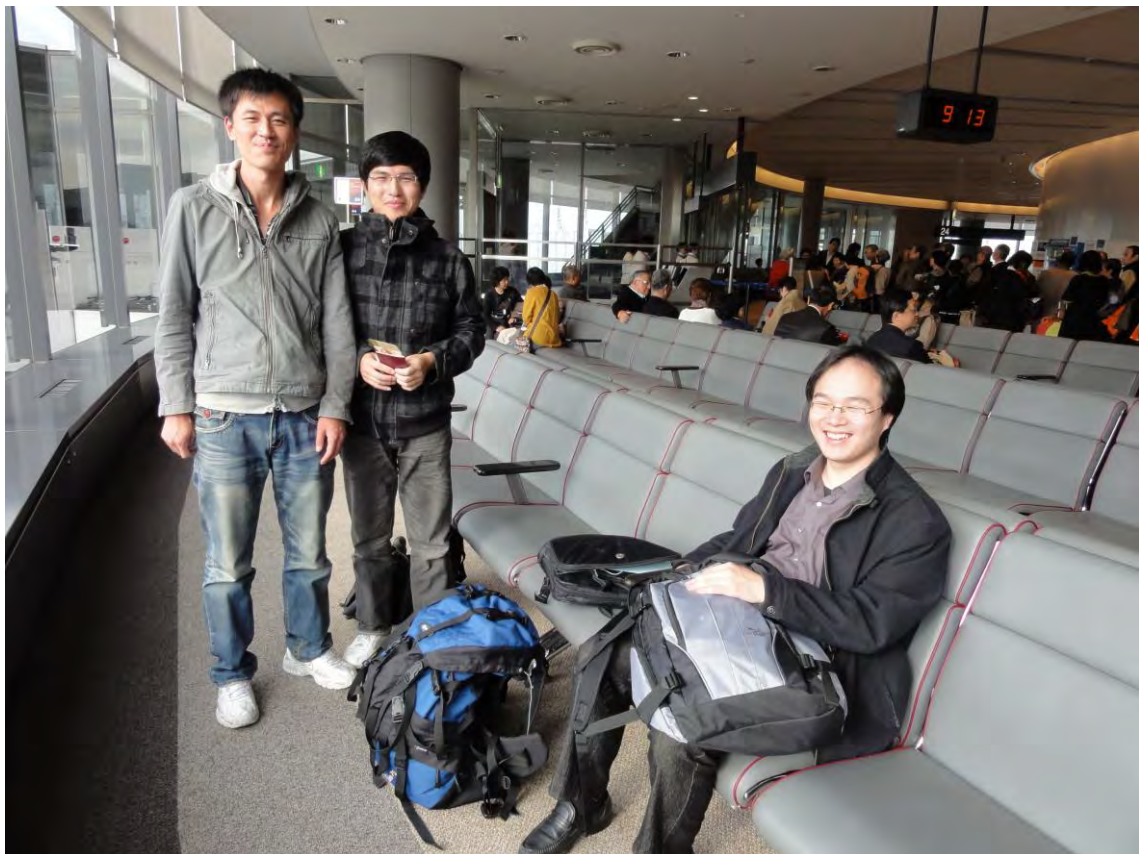
["Analysis of Jitter Accumulation in Interleaved Phase Frequency Detectors for High-Accuracy On-Chip Jitter Measurements,"](#) International SoC Design Conference (Nov. 2011).

[9] Masato Sakurai, Kiichi Niitsu, et. al.,

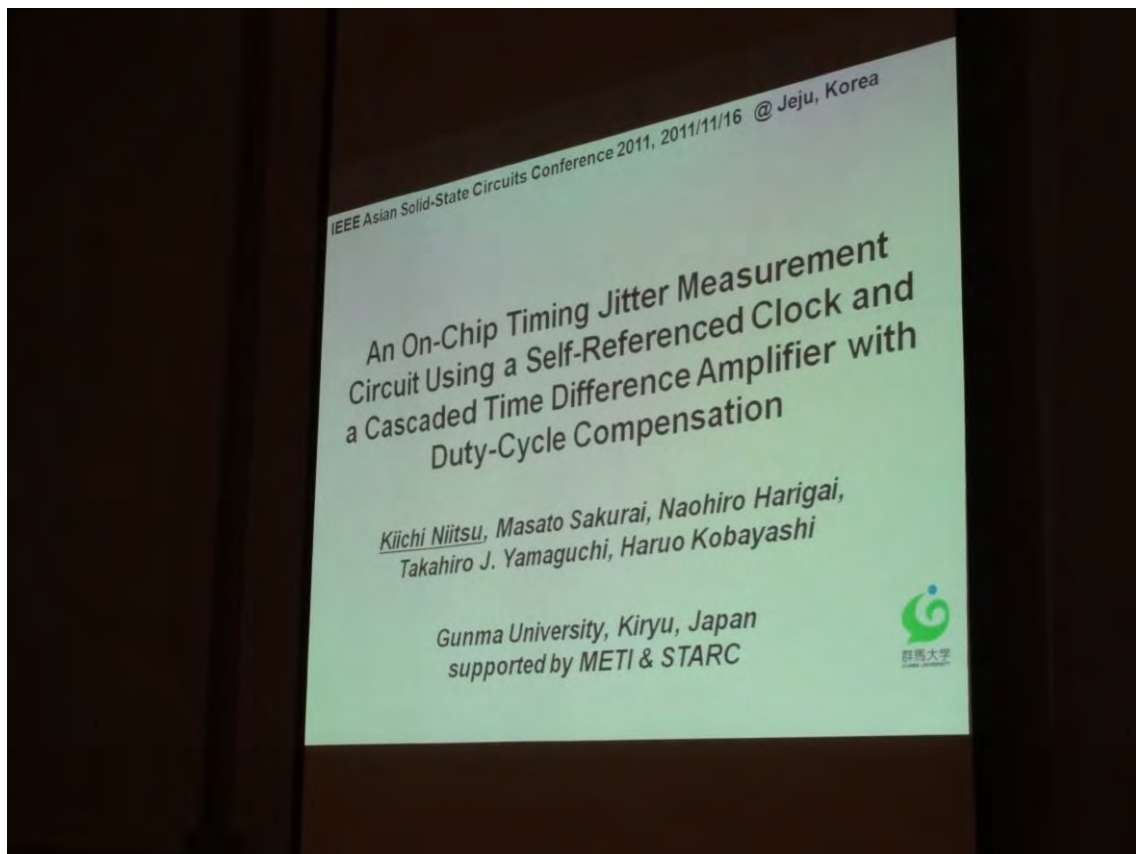
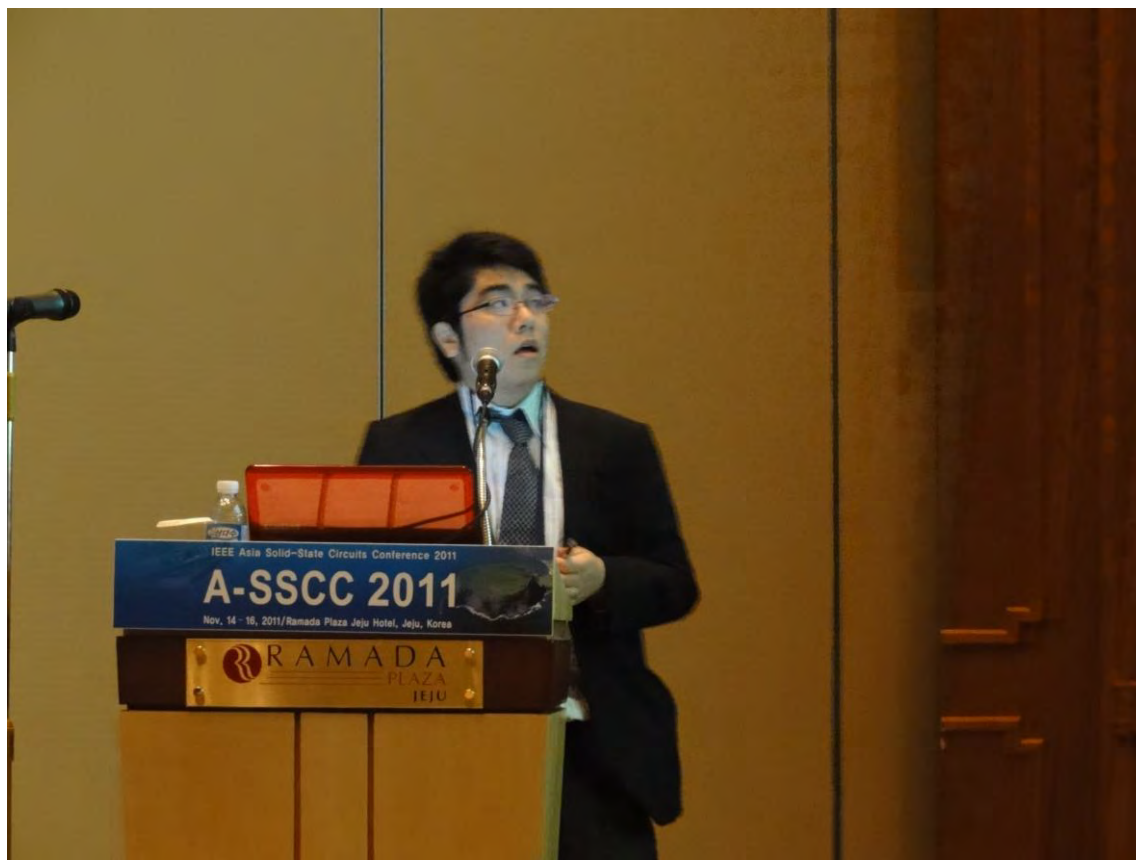
"A Reference-Clock-Free On-Chip Timing Jitter Measurement Circuit Using a Cascaded Time Difference Amplifier with Duty-Cycle Compensation in 65nm CMOS,"  
International SoC Design Conference, Chip Design Contest, Jeju Korea (Nov. 2011)



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Photos by Nobuyoshi Ishikawa, Gunma University

