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Education

B. Eng. Osaka University, 1994.

M. Eng. Electrical Engineering, Osaka University, 1996.

M. S. Electrical Engineering, University of California, Los Angeles, 2003.

Ph. D. Electrical Engineering, Katholieke Universiteit, Leuven, 2007.

Employment

Hitachi, Ltd., Semiconductor and IC division (now Renesas Electronics) 1996–2004.

Katholieke Universiteit Leuven (Post-Doctoral Researcher) 2007–2008.

The University of Electro-Communications (Associate Professor) 2008–2013.

The University of Electro-Communications (Professor) 2013–.

Publications

(Several items are only available in Japanese.)

I Books, Book Chapters

1. 崎山一男 著, 菅原健 著, 李陽 著, “暗号ハードウェアのセキュリティ,” ISBN 978-4-339-02894-2, コロナ社, (May., 2019).
2. 一般社団法人 電気学会・電気システムセキュリティ特別技術委員会スマートグリッドにおける電磁的セキュリティ特別調査専門委員会 編, “IoT 時代の電磁波セキュリティ～21世紀の社会インフラを電磁波攻撃から守るには～,” ISBN 978-4-904774-66-3, 科学情報出版株式会社, 分担執筆, 崎山一男, 林優一, “付録 電磁的情報漏えい: B 暗号モジュールを搭載したハードウェアからの情報漏えいの可能性の検討,” (Apr., 2018).
3. Kazuo Sakiyama, Yu Sasaki, and Yang Li, “Security of Block Ciphers: From Algorithm Design to Hardware Implementation,” ISBN 978-1-118-66001-0, Wiley, (Jul., 2015).

4. Kazuo Sakiyama and Masayuki Terada (Eds.), “Advances in Information and Computer Security – 8th International Workshop on Security, IWSEC 2013, Okinawa, Japan, November 18-20, 2013. Proceedings. Lecture Notes in Computer Science 8231,” ISBN 978-3-642-41383-4, Springer, (Nov., 2013).
5. “ユニーク＆エキサイティングサイエンス,” 梶谷誠(監修), ISBN 978-4-7649-0442-2, 近代科学社, 分担執筆, 崎山一男, “第2章 暗号がつなぐ人と人工物とのコミュニケーション: 暗号とプライバシーとRFIDシステム,” pp.45–70, (Mar., 2013).
6. Junko Takahashi, Toshinori Fukunaga, Shigeto Gomisawa, Yang Li, Kazuo Sakiyama, and Kazuo Ohta, “Fault Injection and Key Retrieval Experiments on Evaluation Board,” Chapter in Marc Joye and Michael Tunstall editors, Fault Analysis in Cryptography, ISBN 978-3-642-29655-0, Springer, (Jul., 2012).
7. Kazuo Sakiyama and Lejla Batina, “Arithmetic for Public-key Cryptography,” Chapter in I. Verbauwhede editor, Secure Integrated Circuits and Systems, ISBN 978-0-387-71827-9, Springer, (Feb., 2010)
8. Lejla Batina and Kazuo Sakiyama, “Compact Public-key Implementations for RFID and Sensor Nodes,” Chapter in I. Verbauwhede editor, Secure Integrated Circuits and Systems, ISBN 978-0-387-71827-9, Springer, (Feb., 2010).
9. Lejla Batina, Kazuo Sakiyama, and Ingrid Verbauwhede, “Architectures for public-key cryptography,” Chapter in Vojin G. Oklobdzija, editor, Digital Systems and Applications, ISBN 978-0-849-38619-0, CRC press, (Nov., 2007).

II Journal Papers

1. Kazuo Sakiyama, Tatsuya Fujii, Kohei Matsuda, and Noriyuki Miura, “Flush Code Eraser: Fast Attack Response to Invalidate Cryptographic Sensitive Data,” IEEE Embedded Systems Letters, Vol.XX, Issue YY, pp.ZZZ – WWW, (to appear).
2. Akiko Toh, Yang Li, Kazuo Sakiyama, Takeshi Sugawara, “Fingerprinting Light Emitting Diodes Using Spectrometer,” IET Electronics Letters, Vol.XX, Issue YY, pp.ZZZ – WWW, 2019.
3. Takeshi Sugawara, Natsu Shoji, Kazuo Sakiyama, Kohei Matsuda, Noriyuki Miura, and Makoto Nagata, “Side-Channel Leakage from Sensor-Based Countermeasures against Fault Injection Attack,” Microelectronics Journal, Vol. 90, pp.63–71, 2019.
4. Takeshi Sugawara, Kazuo Sakiyama, Shoei Nashimoto, Daisuke Suzuki, Tomoyuki Nagatsuka, “Oscillator without a Combinatorial Loop and its Threat to FPGA in Data Center,” IET Electronics Letters, Vol.55, Issue 11, pp.640 – 642, May, 2019.
5. Takeshi Sugawara, Yang Li, and Kazuo Sakiyama, “Probing Attack of Share-Serial Threshold Implementation of AES,” IET Electronics Letters, Vol.55, Issue 9, pp.517-519, May, 2019.
6. Yuichi Komano, Kazuo Ohta, Kazuo Sakiyama, Mitsugu Iwamoto, and Ingrid Verbauwhede, “Single-Round Pattern Matching Key Generation Using Physically Unclonable Function,” Security and Communication Networks, vol. 2019, Article ID 1719585, 13 pages, (Jan., 2019).
7. Kohei Matsuda, Tatsuya Fujii, Natsu Shoji, Takeshi Sugawara, Kazuo Sakiyama, Yu-ichi Hayashi, Makoto Nagata, and Noriyuki Miura, “A 286 F2/Cell Distributed Bulk-Current Sensor and Secure Flush Code Eraser against Laser Fault Injection Attack on Cryptographic Processor,” IEEE Journal of Solid-State Circuits, Vol.53, No.11, pp. 3174-3182, (Nov., 2018).

8. Yang Li, Momoka Kasuya, and Kazuo Sakiyama, "Comprehensive Evaluation on an ID-Based Side-Channel Authentication with FPGA-Based AES," *Appl. Sci.* 2018, 8(10), 1898, (Oct., 2018).
9. Risa Yashiro, Takeshi Sugawara, Mitsugu Iwamoto, and Kazuo Sakiyama, "Q-class Authentication System for Double Arbiter PUF," *IEICE Trans. Fundam. Electron. Commun. Comput. Sci.*, Vol.E101-A, No.1, pp.129-137, (Jan., 2018).
10. Makoto Nagata, Daisuke Fujimoto, Noriyuki Miura, Naofumi Homma, Yu-ichi Hayashi, and Kazuo Sakiyama, "Protecting cryptographic integrated circuits with side-channel information," *IEICE Electronic Express*, IEICE, Vol.14, No.2, pp.20162005, (Jan., 2017).
11. Shugo Mikami, Dai Watanabe, Yang Li, and Kazuo Sakiyama, "Fully Integrated Passive UHF RFID Tag for Hash-Based Mutual Authentication Protocol," *The Scientific World Journal*, Hindawi, Volume 2015 (2015), Article ID 498610, 11 pages, (Aug., 2015).
12. Takanori Machida, Dai Yamamoto, Mitsugu Iwamoto, and Kazuo Sakiyama, "A New Arbiter PUF for Enhancing Unpredictability on FPGA," *The Scientific World Journal*, Hindawi, Volume 2015 (2015), Article ID 864812, 13 pages, (Aug., 2015).
13. Dai Yamamoto, Kazuo Sakiyama, Mitsugu Iwamoto, Kazuo Ohta, Masahiko Takenaka, Kouichi Itoh, and Naoya Torii, "A new method for enhancing variety and maintaining reliability of PUF responses and its evaluation on ASICs *Journal of Cryptographic Engineering*," *J. Cryptographic Engineering*, Vol.5(3), pp.187-199, (Sep., 2015).
14. Sho Endo, Yang Li, Naofumi Homma, Kazuo Sakiyama, Kazuo Ohta, Daisuke Fujimoto, Makoto Nagata, Toshihiro Katashita, Jean-Luc Danger, and Takafumi Aoki, "A Silicon-level Countermeasure against Fault Sensitivity Analysis and Its Evaluation," *IEEE Trans. Very Large Scale Integr. (VLSI) Syst.*, Vol.23, No.8, pp.1429-1438, (Aug., 2015).
15. 中曾根俊貴, 李陽, 岩本貢, 太田和夫, 崎山一男, "クロック間衝突を漏洩モデルとする新たなサイドチャネル解析と並列実装 AES 暗号ハードウェアにおける弱い鍵," *電子情報通信学会論文誌 (A)*, Vol.J97-A, No.11, pp.695-703, (Nov., 2014).
16. Daisuke Fujimoto, Noriyuki Miura, Makoto Nagata, Yuichi Hayashi, Naofumi Homma, Takafumi Aoki, Yohei Hori, Toshihiro Katashita, Kazuo Sakiyama, Thanh-Ha Le, Julien Bringer, Pirouz Bazargan-Sabet, Shivam Bhasin, and Jean-Luc Danger, "Power Noise Measurements of Cryptographic VLSI Circuits Regarding Side-Channel Information Leakage," *IEICE Trans. Electronics*, Vol. E97-C, No.4, pp.272-279, (Apr., 2014).
17. Christophe Clavier, Jean-Luc Danger, Guillaume Duc, M. Abdelaziz Elaabid, Benoît Gérard, Sylvain Guilley, Annelie Heuser, Michael Kasper, Yang Li, Victor Lomné, Daisuke Nakatsu, Kazuo Ohta, Kazuo Sakiyama, Laurent Sauvage, Werner Schindler, Marc Stöttinger, Nicolas Veyrat-Charvillon, Matthieu Walle, Antoine Wurcker, "Practical improvements of side-channel attacks on AES: feedback from the 2nd DPA contest," *J. Cryptographic Engineering*, Vol.4(1), pp.1-16, (Apr., 2014).
18. Kazuo Sakiyama, Yang Li, Shigeto Gomisawa, Yu-ichi Hayashi, Mitsugu Iwamoto, Naofumi Homma, Takafumi Aoki, and Kazuo Ohta, "Practical DFA Strategy for AES Under Limited-Access Conditions," *Journal of Information Processing*, Vol.22, No.2, (Feb., 2014).
19. Dai Yamamoto, Kazuo Sakiyama, Mitsugu Iwamoto, Kazuo Ohta, Masahiko Takenaka, and Kouichi Itoh, "Variety Enhancement of PUF Responses Using the Locations of Random Outputting RS Latches," *J. Cryptographic Engineering*, Vol.3(4) pp.197-211, Springer, (Nov., 2013).
20. Shugo Mikami, Hirotaka Yoshida, Dai Watanabe, Kazuo Sakiyama, "Correlation Power Analysis and Countermeasure on the Stream Cipher Enocoro-128v2," *IEICE Trans. Fundam. Electron. Commun. Comput. Sci.*, Vol.96-A, No.3, pp.697-704, (Mar., 2013).

21. Yang Li, Kazuo Ohta, and Kazuo Sakiyama, "A New Type of Fault-Based Attack: Fault Behavior Analysis," IEICE Trans. Fundam. Electron. Commun. Comput. Sci., Vol.A96-A, No.1, pp.177-184, (Jan., 2013).
22. 小池彩歌, 李陽, 中津大介, 太田和夫, 崎山一男, "複数の要因に対する新たな故障感度解析," 電子情報通信学会論文誌(A), Vol.J95-A, No.10, pp.751-755, (Oct., 2012).
23. Miroslav Knezevic, Kazuyuki Kobayashi, Jun Ikegami, Shin'ichiro Matsuo, Akashi Satoh, Unal Koçabas, Junfeng Fan, Toshihiro Katashita, Takeshi Sugawara, Kazuo Sakiyama, Ingrid Verbauwhede, Kazuo Ohta, Naofumi Homma, and Takafumi Aoki, "Fair and Consistent Hardware Evaluation of Fourteen Round Two SHA-3 Candidates," IEEE Trans. Very Large Scale Integr. (VLSI) Syst., Vol.20, No.5, pp.827-840, (May, 2012).
24. Kazuo Sakiyama, Yang Li, Mitsugu Iwamoto, and Kazuo Ohta, "Information-Theoretic Approach to Optimal Differential Fault Analysis," IEEE Trans. Inf. Forensic Secur., Vol.7, No.1, pp.109-120, (Feb., 2012).
25. Yang Li, Kazuo Ohta, and Kazuo Sakiyama, "New Fault-Based Side-Channel Attack using Fault Sensitivity," IEEE Trans. Inf. Forensic Secur., Vol.7, No.1, pp.88-97, (Feb., 2012).
26. Junko Takahashi, Toshinori Fukunaga, Kazuo Sakiyama, "Differential Fault Analysis on Stream Cipher MUGI," IEICE Trans. Fundam. Electron. Commun. Comput. Sci., Vol.A95-A, No.1, pp.242-251, (Jan., 2012).
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28. Lei Wang, Yu Sasaki, Wataru Komatsubara, Kazuo Sakiyama, Kazuo Ohta, "Meet-in-the-Middle (Second) Preimage Attacks on Two Double-Branch Hash Functions RIPEMD and RIPEMD-128," IEICE Trans. Fundam. Electron. Commun. Comput. Sci., Vol.A95-A, No.1, pp.100-110, (Jan., 2012).
29. Kazuo Sakiyama, Miroslav Knezevic, Junfeng Fan, Bart Preneel, and Ingrid Verbauwhede, "Tripartite Modular Multiplication," Integration-VLSI J., Vol.44, Issue 4, pp.259-269, (Apr., 2011).
30. Yang Li, Kazuo Sakiyama, Shinichi Kawamura, and Kazuo Ohta, "Power Analysis against a DPA-resistant S-box Implementation Based on the Fourier Transform," IEICE Trans. Fundam. Electron. Commun. Comput. Sci., Vol.A94-A, No.1, pp.191-199, (Jan., 2011).
31. Bagus Santoso, Kazuo Ohta, Kazuo Sakiyama, Goichiro Hanaoka, "An Efficient Authentication for Lightweight Devices by Perfecting Zero-Knowledgeness," IEICE Trans. Fundam. Electron. Commun. Comput. Sci., Vol.A94-A, No.1, pp.92-103, (Jan., 2011).
32. Lei Wang, Kazuo Ohta, Yu Sasaki, Kazuo Sakiyama, and Noboru Kunihiro, "Cryptanalysis of Two MD5-Based Authentication Protocols: APOP and NMAC," IEICE Trans. Inf. & Syst., Vol.E93-D, (May, 2010).
33. Kazuo Sakiyama and Kazuo Ohta, "On Clock-based Fault Analysis Attack for an AES Hardware Using RSL," IEICE Trans. Fundam. Electron. Commun. Comput. Sci., Vol.E93-A, No.01, pp.172-179, (Jan., 2010).
34. Yong Ki Lee, Kazuo Sakiyama, Lejla Batina, and Ingrid Verbauwhede, "Elliptic Curve Based Security Processor for RFID," IEEE Trans. Comput., Vol.57, No.11, pp.1514-1527, (Nov., 2008).
35. Junfeng Fan, Kazuo Sakiyama, and Ingrid Verbauwhede, "Elliptic Curve Cryptography on Embedded Multicore Systems," Des. Autom. Embed. Syst., Vol.12, No.3, pp.231-242, (Sep., 2008).

36. Kazuo Sakiyama, Lejla Batina, Bart Preneel, and Ingrid Verbauwhede, "Multi-core Curve-based Cryptoprocessor with Reconfigurable Modular Arithmetic Logic Units over GF(2^n)," IEEE Trans. Comput., Vol.56, No.9, pp.1269-1282, (Sep., 2007).
37. Kazuo Sakiyama, Lejla Batina, Bart Preneel, and Ingrid Verbauwhede, "HW/SW Co-design for Public-Key Cryptosystems on the 8051 Micro-controller, Computers & Electrical Engineering," Vol.33, No.5-6, pp.324-332, (Sep., 2007).
38. Kazuo Sakiyama, Lejla Batina, Bart Preneel, and Ingrid Verbauwhede, "High-performance Public-key Cryptoprocessor for Wireless Mobile Applications," Mob. Netw. Appl., Vol.12, No.4, pp.245-258, (Aug., 2007).
39. Kazuo Sakiyama, Nele Mentens, Lejla Batina, Bart Preneel, and Ingrid Verbauwhede, "Reconfigurable Modular Arithmetic Logic Unit Supporting High-performance RSA and ECC over GF(p)," International Journal of Electronics, Vol.94, No.5, pp.501-514, (May, 2007).
40. Shenglin Yang, Kazuo Sakiyama, and Ingrid Verbauwhede, "Efficient and Secure Fingerprint Verification for Embedded Devices," EURASIP J. Adv. Signal Process., Vol.2006, No.1-11, (May, 2006).
41. Young-Jae Cho, Takashi Hirakawa, Kazuo Sakiyama, Hiroaki Okamoto, and Yoshihiro Hamakawa, "EL/PL hybrid device enhanced by UV emission from ZnF₂:Gd thin film electroluminescence," J. Korean. Phys. Soc., Vol.30(1997), pp.S65-S68, (Jun., 1997).
42. Young-Jae Cho, Takashi Hirakawa, Kazuo Sakiyama, Hiroaki Okamoto, and Yoshihiro Hamakawa, "ZnF₂:Gd Thin Film Electroluminescent Device," Appl. Surf. Sci., Vol.113-114 (1997), pp.705-708, (Apr., 1997).

III Conference Papers (with Peer Reviews)

1. Yang Li, Ryota Hatano, Sho Tada, Kohei Matsuda, Noriyuki Miura, Takeshi Sugawara, and Kazuo Sakiyama, "Side-Channel Leakage of Alarm Signal for a Bulk-Current-Based Laser Sensor," In Proc. International Conference on Information Security and Cryptology (Inscrypt'19), LNCS XXXX, Springer-Verlag, pp.YYY-ZZZ, (to appear in Dec., 2019).
2. Risa Yashiro, Yohei Hori, Toshihiro Katashita, and Kazuo Sakiyama, "A Deep Learning Attack Countermeasure with Intentional Noise for a PUF-based Authentication Scheme," In Proc. International Conference on Security for Information Technology and Communications (SecITC'19) , LNCS XXXX, Springer-Verlag, pp.YYY-ZZZ, (to appear in Nov., 2019).
3. Hakuei Sugimoto, Ryota Hatano, Natsu Shoji, and Kazuo Sakiyama, "Validating the DFA Attack Resistance of AES (Short Paper)," In Proc. International Symposium on Foundations & Practice of Security (FPS'19), LNCS XXXX, Springer-Verlag, pp.YYY-ZZZ, (to appear in Nov., 2019).
4. Kohei Matsuda, Sho Tada, Makoto Nagata, Yang Li, Takeshi Sugawara, Mitsugu Iwamoto, Kazuo Ohta, Kazuo Sakiyama, and Noriyuki Miura, "An Information Leakage Sensor Based on Measurement of Laser-Induced Opto-Electric Bulk Current Density," International Conference on Solid State Devices and Materials (SSDM'19), Extended Abstracts, pp.XXX-YYY, (Sep., 2019).
5. Natsu Shoji, Takeshi Sugawara, Mitsugu Iwamoto and Kazuo Sakiyama, "An Abstraction Model for 1-bit Probing Attack on Block Ciphers," In Proc. International Conference on Computer and Communication Systems (ICCCS'19), IEEE, pp.502-506, (Feb., 2019).
6. Ryuga Matsumura, Takeshi Sugawara, and Kazuo Sakiyama, "A Secure LiDAR with Side-channel Fingerprinting," In Proc. International Symposium on Computing and Networking, CANDAR Workshops (CANDARW'18), IEEE, pp.479-482, (Aug., 2018).

7. Zhiwei Yuan, Yang Li, Kazuo Sakiyama, Takeshi Sugawara, and Jian Wang, "Recovering Memory Access Sequence with Differential Flush+Reload Attack," In Proc. International Conference on Information Security Practice and Experience (ISPEC'18), LNCS 11125, Springer-Verlag, pp.424-439, (Sep., 2018).
8. Jean-Luc Danger, Risa Yashiro, Tarik Graba, Sylvain Guille, Yves Mathieu, Noriyuki Miura, Abdellmalek Si-Merabet, Kazuo Sakiyama, and Makoto Nagata, "Analysis of Mixed PUF-TRNG Circuit Based on SR-Latches in FD-SOI Technology," In Proc. Euromicro Conference on Digital System Design (DSD'18), IEEE, pp.508-515, (Aug., 2018).
9. Shoei Nashimoto, Daisuke Suzuki, Takeshi Sugawara, Kazuo Sakiyama, "Sensor CON-Fusion: Defeating Kalman Filter in Signal Injection Attack," In Proc. Asia Conference on Computer and Communications Security (AsiaCCS'18), ACM, pp.511-524, (Jun., 2018).
10. Kohei Matsuda, Tatsuya Fujii, Natsu Shoji, Takeshi Sugawara, Kazuo Sakiyama, Yu-ichi Hayashi, Makoto Nagata, and Noriyuki Miura, "A 286 F²/Cell Distributed Bulk-Current Sensor and Secure Flush Code Eraser Against Laser Fault Injection Attack," Dig. Tech. Papers, 2018 IEEE Intl. Solid-State Circuits Conference (ISSCC'18), IEEE, #21.5, pp.352-354, (Feb. 2018).
11. Takeshi Sugawara, Natsu Shoji, Kazuo Sakiyama, Kohei Matsuda, Noriyuki Miura, and Makoto Nagata, "Exploiting Bitflip Detector for Non-Invasive Probing and its Application to Ineffective Fault Analysis," In Proc. Workshop on Fault Diagnosis and Tolerance in Cryptography (FDTC'17), IEEE, pp.49-56, (Sep., 2017).
12. Eito Miyamoto, Takeshi Sugawara, and Kazuo Sakiyama, "Efficient Software Implementation of Modular Multiplication in Prime Fields on TI's DSP TMS320C6678," In Proc. International Workshop on Information Security Applications (WISA'17), LNCS 10763, Springer-Verlag, pp.261-273, (Aug., 2017).
13. Momoka Kasuya and Kazuo Sakiyama, "Improved EM Side-Channel Authentication Using Profile-Based XOR Model," In Proc. International Workshop on Information Security Applications (WISA'17), LNCS 10763, Springer-Verlag, pp.173-183, (Aug., 2017).
14. Kohei Matsuda, Noriyuki Miura, Makoto Nagata, Yu-ichi Hayashi, Tatsuya Fujii, and Kazuo Sakiyama, "On-Chip Substrate-Bounce Monitoring for Laser-Fault Countermeasure," In Proc. 2016 IEEE Asian Hardware-Oriented Security and Trust (AsianHOST'16), IEEE, pp.1-6, (Dec. 2016).
15. Risa Yashiro, Takanori Machida, Mitsugu Iwamoto, and Kazuo Sakiyama, "Deep-Learning-Based Security Evaluation on Authentication Systems Using Arbiter PUF and Its Variants," In Proc. International Workshop on Security 2016 (IWSEC'16), LNCS 9836, Springer-Verlag, pp.267-285, (Sep., 2016).
16. Momoka Kasuya, Takanori Machida, and Kazuo Sakiyama, "New Metric for Side-Channel Information Leakage: Case Study on EM Radiation from AES Hardware," In Proc. URSI Asia-Pacific Radio Science Conference (URSI AP-RASC'16), IEEE, (Aug., 2016).
17. Kazuo Sakiyama, Reina Yagasaki, Takanori Machida, Tatsuya Fujii, Noriyuki Miura, and Yu-ichi Hayashi, "Circuit-Level Information Leakage Prevention for Fault Detection," In Proc. URSI Asia-Pacific Radio Science Conference (URSI AP-RASC'16), IEEE, (Aug., 2016).
18. Kazuo Sakiyama, Momoka Kasuya, Takanori Machida, Arisa Matsubara, Yunfeng Kuai, Yu-ichi Hayashi, Takaaki Mizuki, Noriyuki Miura, and Makoto Nagata, "Physical Authentication Using Side-Channel Information," In Proc. International Conference on Information and Communication Technology (ICoICT'16), IEEE, (May, 2016).

19. Shugo Mikami, Dai Watanabe, Kazuo Sakiyama, "A Performance Evaluation of Cryptographic Algorithms on FPGA and ASIC on RFID Design Flow," In Proc. International Conference on Information and Communication Technology (ICoICT'16), IEEE, (May, 2016).
20. Reina Yagasaki and Kazuo Sakiyama, "Artifact-Metric-Based Authentication for Bottles of Wine," In Proc. International Workshop on Security 2015 (IWSEC'15), LNCS 9241, Springer-Verlag, pp.335-344, (Aug., 2015).
21. Kazuo Sakiyama, Takanori Machida, and Arisa Matsubara, "Advanced Fault Analysis Techniques on AES," In Proc. Joint IEEE International Symposium on Electromagnetic Compatibility and EMC Europe (EMC'15), pp.230-234, IEEE, (Aug., 2015).
22. Takanori Machida, Dai Yamamoto, Mitsugu Iwamoto, and Kazuo Sakiyama, "Implementation of Double Arbiter PUF and Its Performance Evaluation on FPGA," 20th Asia and South Pacific Design Automation Conference (ASP-DAC'15), pp.6-7, IEEE, (Jan., 2015).
23. Yang Li, Shugo Mikami, Dai Watanabe, Kazuo Ohta, and Kazuo Sakiyama, "Single-Chip Implementation and Evaluation of Passive UHF RFID Tag with Hash-Based Mutual Authentication," In Proc. Workshop on RFID Security (RFIDsec'14 Asia), IOS Press, pp.3-15, (Nov., 2014).
24. Takanori Machida, Dai Yamamoto, Mitsugu Iwamoto, and Kazuo Sakiyama, "A New Mode of Operation for Arbiter PUF to Improve Uniqueness on FPGA," In Proc. The Federated Conference on Computer Science and Information Systems (FedCSIS), 1st Workshop on Emerging Aspects in Information Security (EAIS'14), IEEE, pp.871-878 (Sep., 2014).
25. Dai Yamamoto, Masahiko Takenaka, Kazuo Sakiyama, and Naoya Torii, "Security Evaluation of Bistable Ring PUFs on FPGAs using Differential and Linear Analysis," In Proc. The Federated Conference on Computer Science and Information Systems (FedCSIS), 1st Workshop on Emerging Aspects in Information Security (EAIS'14), IEEE, pp.911-918 (Sep., 2014).
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27. Yang Li, Toshiki Nakasone, and Kazuo Sakiyama, "Software and Hardware Co-Verification for Privacy-Enhanced Passive UHF RFID Tags," In Proc. 2014 IEEE International Symposium on Electromagnetic Compatibility (EMC'14), IEEE, pp.752-757 (Aug., 2014).
28. Daisuke Fujimoto, Noriyuki Miura, Makoto Nagata, Yuichi Hayashi, Naofumi Homma, Takafumi Aoki, Yohei Hori, Toshihiro Katashita, Kazuo Sakiyama, Thanh-Ha Le, Julien Bringer, Pirouz Bazargan-Sabet, Shivam Bhasin, and Jean-Luc Danger, "Correlation Power Analysis using Bit-Level Biased Activity Plaintexts against AES Core with Countermeasures," in Proc. 2014 International Symposium on Electromagnetic Compatibility, Tokyo (EMC'14/Tokyo), IEEE, pp 306-309, 14P2-A3, (May, 2014).
29. Yang Li, Toshiki Nakasone, Kazuo Ohta, Kazuo Sakiyama, "Privacy-Mode Switching: Toward Flexible Privacy Protection for RFID Tags in Internet of Things," In Proc. The 11th Annual IEEE Consumer Communications & Networking Conference (CCNC'14), IEEE, pp.519-520, (Jan., 2014).
30. Shugo Mikami, Dai Watanabe, and Kazuo Sakiyama, "A Comparative Study of Stream Ciphers and Hash Functions for RFID Authentications," In Proc. The 2013 Workshop on RFID and IoT Security (RFIDsec'13 Asia), IOS Press, pp.83-94, (Nov., 2013).
31. Yang Li, Yu-ichi Hayashi, Arisa Matsubara, Naofumi Homma, Takafumi Aoki, Kazuo Ohta and Kazuo Sakiyama, "Yet Another Fault-Based Leakage in Non-Uniform Faulty Ciphertexts," In Proc. The Sixth International Symposium on Foundations & Practice of Security (FPS'13), LNCS 8352, pp.272-287, Springer-Verlag, (Oct., 2013).

32. Daisuke Fujimoto, Noriyuki Miura, Makoto Nagata, Yuichi Hayashi, Naofumi Homma, Yohei Hori, Toshihiro Katashita, Kazuo Sakiyama, Thanh-Ha Le, Julien Bringer, Pirouz Bazargan-Sabet, Jean-Luc Danger, "On-chip power noise measurements of cryptographic VLSI circuits and interpretation for side-channel analysis," In Proc. International Symposium on Electromagnetic Compatibility (EMC EUROPE) 2013, IEEE, pp.405-410, (Sep., 2013).
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VI その他（出願特許、外部資金獲得状況）

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2. 日本学術振興会 (JSPS) 科学研究費助成事業 (KAKEN) 基盤研究 (A) : レーザーフォールト攻撃による情報漏洩を防ぐ耐タンパー技術の総合的研究, 研究代表者: 崎山一男, H27-H29.
3. 日本学術振興会 (JSPS) 科学研究費助成事業 (KAKEN) 挑戦的萌芽研究 : サイドチャネル情報を用いた認証システムの構築と安全性評価, 研究代表者: 崎山一男, H27-H29.
4. 日本学術振興会 (JSPS) 科学研究費補助金 基盤研究 (A) : 暗号 VLSI の電磁波セキュリティを確保するサイドチャネル攻撃センサの構成法と実証, 研究代表者: 永田真, H26-H29 (研究分担者として) .
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9. 日本学術振興会 (JSPS) 科学研究費補助金 基盤研究 (C) : 暗号プリミティブの安全性検証の自動化への展開, 研究分担者, H19-H21.
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