External Awards

EuroUSEC 2021 Best Paper Award
Winners: Tenga Matsuura, Waseda University; Ayako A. Hasegawa, Mitsuaki Akiyama, NTT Social Informatics Laboratories; Tatsuya Mori, Waseda University/NICT/RIKEN AIP
Date: October 11, 2021
Organization: The European Symposium on Usable Security (EuroUSEC)

For "Careless Participants Are Essential for Our Phishing Study: Understanding the Impact of Screening Methods."
Published as: T. Matsuura, A. A. Hasegawa, M. Akiyama, and T. Mori, "Careless Participants Are Essential for Our Phishing Study: Understanding the Impact of Screening Methods," EuroUSEC 2021, Oct. 2021.

Outstanding Reviewer Award (Top 10%)
Winner: Shiro Kumano, NTT Communication Science Laboratories
Date: October 27, 2021
Organization: The 23rd ACM International Conference on Multimodal Interaction (ICMI 2021)

CSS2021 Best Paper Award
Winners: Kazuki Nomoto, Waseda University; Mitsuaki Akiyama, NTT Social Informatics Laboratories; Masashi Eto, Ministry of Internal Affairs and Communications; Atsuo Inomata, Osaka University; Tatsuya Mori, Waseda University/NICT
Date: October 28, 2021
Organization: Information Processing Society of Japan (IPSJ)

For "Understanding the Risks of Re-identification Attack on the Contact Tracing Frameworks and Its Countermeasures."
Published as: K. Nomoto, M. Akiyama, M. Eto, A. Inomata, and T. Mori, "Understanding the Risks of Re-identification Attack on the Contact Tracing Frameworks and Its Countermeasures," Computer Security Symposium (CSS) 2021, Oct. 2021.

CSS2021 Outstanding Paper Award / MWS2021 Outstanding Paper Award
Winners: Toshinori Usui, NTT Social Informatics Laboratories/ Institute of Industrial Science, The University of Tokyo; Tomonori Ikuse, Yuhei Kawakoya, Makoto Iwamura, NTT Social Informatics Laboratories; Kanta Matsuura, Institute of Industrial Science, The University of Tokyo
Date: October 28, 2021
Organization: IPSJ

For "Automatically Appending Execution Stall/Stop Prevention to Vanilla Script Engines."
Published as: T. Usui, T. Ikuse, Y. Kawakoya, M. Iwamura, and K. Matsuura, "Automatically Appending Execution Stall/Stop Prevention to Vanilla Script Engines," CSS2021, Oct. 2021.

CSS2021 Encouragement Award
Winners: Shu Aakabane, Kanagawa Institute of Technology; Yuhei Kawakoya, Makoto Iwamura, NTT Social Informatics Laboratories; Takeshi Okamoto, Kanagawa Institute of Technology
Date: October 28, 2021
Organization: IPSJ

For "Identifying Library Function Names Based on Function Dependencies and Linking Ordering in IoT Malware."
Published as: S. Aakabane, Y. Kawakoya, M. Iwamura, and T. Okamoto, "Identifying Library Function Names Based on Function Dependencies and Linking Ordering in IoT Malware," CSS2021, Oct. 2021.

CSS2021 Encouragement Award
Winners: Toshiki Shibahara, Takayuki Miura, Masanobu Kii, Atsunori Ichikawa, NTT Social Informatics Laboratories
Date: October 28, 2021
Organization: IPSJ

For "Privacy Risk of Differentially Private Bayesian Neural Network."
Published as: T. Shibahara, T. Miura, M. Kii, and A. Ichikawa, "Privacy Risk of Differentially Private Bayesian Neural Network," CSS2021, Oct. 2021.

Papers Published in Technical Journals and Conference Proceedings

Computational Self-testing for Entangled Magic States
A. Mizutani, Y. Takeuchi, R. Hiromasa, Y. Aikawa, and S. Tani
arXiv:2111.02700, November 2021.

In the seminal paper [Metger and Vidick, Quantum '21], they proposed a computational self-testing protocol for Bell states in a single quantum device. Their protocol relies on the fact that the target

states are stabilizer states, and hence it is highly non-trivial to reveal whether the other class of quantum states, *non-stabilizer states*, can be self-tested within their framework. Among non-stabilizer states, magic states are indispensable resources for universal quantum computation. In this letter, we show that a magic state for the *CCZ* gate can be self-tested while that for the *T* gate cannot. Our result is applicable to a proof of quantumness, where we can classically verify whether a quantum device generates a quantum state having non-zero magic.