Letter to the Editor

Comment on “Quantum-to-the-Home: Achieving Gbits/s Secure Key Rates via Commercial Off-the-Shelf Telecommunication Equipment”

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The article titled “Quantum-to-the-Home: Achieving Gbits/s Secure Key Rates via Commercial Off-the-Shelf Telecommunication Equipment” [1] copied substantial parts of our previous publications without properly citing the source. In our previous publications we clearly described the mathematical model of our RF-subcarrier-assisted four-state continuous-variable QKD (CV-QKD) system, as well as the phase noise cancellation (PNC) stage [2, 3]. While the article [1] copied our work without properly citing it, they cited one of our articles in an unremarkable position in Section 3 and put the core mathematical model and PNC model in the appendix, like their creative work. As an illustration, Figure 2 in their article can be found as Figure 1 of [2]. However, they attributed the PNC stage to their previous conference paper [4], which was presented in June 2017, well after the articles [2, 3] were published. Further, the derivations in Appendices A and B are copied from [2] with some small changes.

- [2] Z. Qu, I. B. Djordjevic, and M. A. Neifeld, “RF-subcarrier-assisted four-state continuous-variable QKD based on coherent detection,” *Optics Express*, vol. 41, no. 23, pp. 5507–5510, 2016.
- [3] Z. Qu and I. B. Djordjevic, “High-speed free-space optical continuous-variable quantum key distribution enabled by three-dimensional multiplexing,” *Optics Express*, vol. 25, no. 7, pp. 7919–7928, 2017.
- [4] R. Asif and W. J. Buchanan, “Seamless cryptographic key generation via off-the-shelf telecommunication components for end-to-end data encryption,” in *Proceeding of the 10th IEEE International Conference on Internet of Things (iThings)*’17, June 2017.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

References

- [1] R. Asif and W. J. Buchanan, “Quantum-to-the-home: achieving gbits/s secure key rates via commercial off-the-shelf telecommunication equipment,” *Security and Communication Networks*, vol. 2017, Article ID 7616847, 10 pages, 2017.