Special Issue

Symmetry and Asymmetry in Cryptography and Outsourcing Computation

Message from the Guest Editor

With the development of cloud computing, outsourcing computation has attracted widespread attention from the academic world and industrial community, during which the outsourcer with limited resources can delegate expensive computational work to powerful servers based on symmetry and asymmetry cryptography, capable of realizing the full utilization of a resource, possibly saving a substantial amount of computation time and cost for the outsourcer with limited ability. This Special Issue aims to explore and address the security and privacy aspects associated with outsourcing computation, encouraging novel, transformative and multidisciplinary solutions by addressing unique challenges in this area. Potential topics include, but are not limited to, the following:

- Survey of security and privacy in outsourcing computation;
- Lightweight cryptographic primitive design for secure outsourcing computation;
- Verifiable outsourcing computation;
- The common theory of secure outsourcing computation;
- Applications of secure outsourcing computation for machine learning, federated learning and distributed computation.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

Editor-in-Chief

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