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Secure Computation on Encrypted Data

Guest Editor:

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Message from the Guest Editor

As an application of cryptography, Searchable Encryption schemes are designed to be secure against an adversarial model and with a technical environment in mind. Legacy-Compliant Searchable Encryption schemes can be utilised with traditional relational database management systems (RDBMSs), which use structured query language (SQL)—a type of programming designed to retrieve specific information from databases. Ultimately, if a cloud service is breached and the data are encrypted, individuals or companies are the only ones who retain the private key to unlock the data. Having data encrypted in the cloud, yet as still searchable and updatable, is one path to preventing future data breaches.

Searchable Symmetric Encryption will be an essential tool for many individuals and organisations—especially in a time where the majority of us are relying on technology more than ever before. We can expect to see the continuation of this as technology advances, to prevent data breaches from becoming even more of a threat. This issue is a call for papers in the area of computation or search over encrypted data.



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