



## İTÜ Matematik Seminerleri

# Computing on Encrypted Data: Homomorphic Encryption

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### Abstract

Recent technological developments have increased the number of mobile devices and their usage. Mobile technologies have access to large data centers (in the cloud). Therefore, outsourcing computation securely to a cloud has become a very challenging though inevitable step. However, it is impossible to solve this challenge with the conventional symmetric/asymmetric cryptographic algorithms (e.g., AES, RSA). (Partial/Fully) Homomorphic Encryption is one of the best candidates to securely outsource any computation.

In this talk, we give a survey about the homomorphic encryption techniques and open problems.

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