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Shafi Goldwasser* (shafi@theory.csail.mit.edu), 32 Vassar St. G-682, Cambridge, MA 02139. *Current Challenges in Information Security.*

We will describe some of the modern security challenges raised by cloud computing, such computing on encrypted data and delegating memory and computation to untrusted servers. There have been some exciting developments in this field in the last few years, including the development of fully homomorphic encryption, functional encryption, and delegation of garbled computation which we will describe. (Received February 12, 2013)