Title: Inference problem: an auditing-based approach

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Abstract: Due to the recent advances in technologies, information systems are now integrated into almost all organizations, thus increasing the need for data exploitation. Today's world makes data an important resource for organizations. The use of these data must be controlled in order to take into account the constraints related to the trades (e.g., competition), individuals (e.g., personal data) or states (e.g., national security). The access control to data stored at the database level is an important aspect of any information system. It can be achieved by defining a set of rules governing the permissions applied to the data. However, this approach is practically not always sufficient and an audit of the user's requests is necessary. In this presentation, we discuss the problem of inference in the context of data integration. We will show the limitations of classical access control in this context. We will then present the approach used in our work. Our approach is based on real-time query auditing.

