

Abstract: Several techniques and models have been proposed to control access to databases. However, to our knowledge, the problem of automatically generating, from access control policies defined over base relations the access control policies that are needed to control access to materialized views is not investigated so far. We choose to express fine-grained access control through authorization views. We investigate this problem by resorting to an adaptation of query rewriting techniques. We provide a novel approach to automatically derive access control policies of materialized views from access control policies defined for base relations when views can be expressed as conjunctive queries. We show that our approach is secure (no information disclosure) and under some conditions, the approach is maximal (all authorized data are accessed).



Bio: Emmanuel Coquery is associate professor at Université Claude Bernard Lyon 1's computer science department since 2005. He is heading the "Technologies de l'Information et Web" speciality of the Master Informatique at Lyon 1 since its creation in 2007. He is served as program committee member in various conferences including WI (2011-2015) and ICSOC (2010-2013). His current research interests are on logical languages either in the context of data security or in the context of pattern mining. Previously, he worked on access control analysis of Web service business protocols based on annotated timed automata.