Title: Achieving Privacy and Utility Trade-off in Mobility Data with PULP

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Abstract: The widespread use of mobile devices and locationbased services has generated massive amounts of mobility databases. While processing these data is highly valuable (improvement of public transportation facilities, collaborative mapping, etc.), privacy issues can occur if personal information are released (frequently visited places, social relationships, etc.). Dedicated literature has investigated ways to protect mobility data by providing a large range of Location Privacy Protection Mechanisms. However, the privacy level of the protected data significantly varies depending on the protection mechanism used, its configuration and on the characteristics of the mobility data. Meanwhile, the protected data still needs to enable some useful post-processing. In order to tackle these issues, we present PULP, a framework that finds the suitable protection mechanism and configure it for each mobility database user in order to achieve user-defined objectives in terms of both privacy and utility.

