Relational databases for lattice data analysis

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Numerical studies in lattice gauge theory require the organization and analysis of large volumes of data. These data and analyses thereof can be viewed as a sequence of maps and reductions, a structure that can be represented naturally using relational databases. Organized in this way, the analysis of even large, heterogenous datasets is straightforward to automate. We present in abstract our methods to store, organize, and analyze lattice data, as well as an outline of a functioning implementation using PostgreSQL.

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