

The Pyrrho Experiment

Prof. Dr. Malcolm Kenneth Crowe, University of the West of Scotland, UK

Prof. Dr. Friedrich Laux, Reutlingen University, Germany

This contribution is the latest in a sequence of DBKDA items that started in 2017, with the basic theme of using optimistic transaction algorithms as a basis for relational database implementation. These presentations have included live demos showing performance of serialized transactions under conditions of high concurrency beyond the capabilities of traditional commercial DBMS.

Recent contributions have focussed on the algorithms and programming aspects of this approach. This year the presentation is about the reimplementing of an optimistic RDBMS with serialized transactions, using a special type of shareable immutable data structures. As usual, there are trade-offs between data correctness, SQL features and productivity.

A notable extra feature in PyrrhoDBMS is an implementation of view-mediated virtual data warehousing called RESTView, and some details of this are included.