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Efficient query processing on large spatial databases A performance study

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## ACCEPTED MANUSCRIPT

## Highlights

- A spatial index, called xBR+-tree, is compared against the R\*-tree and the R+-tree.
- Performance of tree building and processing of common spatial queries is studied.
- Existing and new algorithms for processing these queries are utilized.
- Extensive experimental results on medium and large datasets are presented.
- The xBR+-tree is the winner of execution-time in all cases and of I/0 in most cases.

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