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Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)

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Computing range skyline query on uncertain dimension (Conference Paper)

Saad, N.H.M.^a ✉️, Ibrahim, H.^a ✉️, Sidi, F.^a ✉️, Yaakob, R.^a ✉️, Alwan, A.A.^b ✉️ 👤

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Abstract

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A user sometimes prefers to not be restricted when querying for information. Querying information within a range of search often provides a different perspective to user as opposed to a rigid search. To compute skyline within a given range would be easy on traditional dataset. The challenge is when the dataset being queried consists of both atomic values as well as continuous range of values. For a set of objects with uncertain dimension, a skyline with a range query [q_j; q'_j] on that uncertain dimension returns objects which are not dominated by any other objects in the range query. A method is proposed to determine objects and answer skyline query that satisfy the range query. The correctness of the method is proven through comparisons between two naïve methods that strictly reject and loosely accept objects that intersect with the range query. © Springer International Publishing Switzerland 2016.

SciVal Topic Prominence ⓘ

Topic: Skyline | Top-K | Query Processing

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Author keywords

Probabilistic skyline Range query Uncertain dimension

Indexed keywords

Engineering controlled terms: Expert systems

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