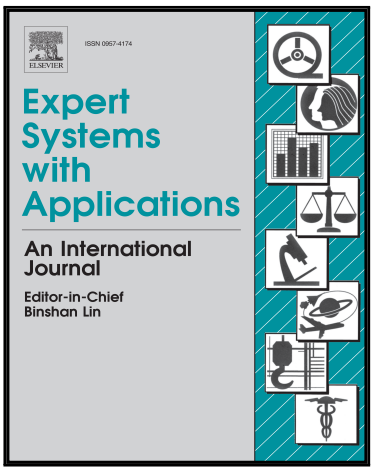

Differentially Private Random Decision Forests using Smooth Sensitivity

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Highlights

- We propose an algorithm that produces a differentially-private random decision forest
- The decision forest substantially outperforms the current state-of-the-art
- The algorithm only uses queries that are very insensitive to fluctuations in the data
- The optimal depth for random decision trees with continuous attributes is calculated
- Sampling without replacement for each tree is shown to improve prediction accuracy