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Nonlinear Regression via Incremental Decision Trees

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**Highlights**

- An online nonlinear regression algorithm is proposed.
- Optimal regressor space partition is inferred to manage convergence and undertraining.
- Performance of the optimal twice differentiable regression function is achieved.
- Performance guarantees hold for any data sequence without any statistical assumptions.
- Proposed algorithm is superior over the state-of-the-art techniques.

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