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Adaptive isogeometric analysis with hierarchical box splines

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Highlights (for review)

- We propose an adaptive isogeometric method with (truncated) hierarchical box splines.

- Local refinement is achieved by considering hierarchically nested sequences of box spline spaces.

- Near the domain boundary, a domain boundary strip is used to enforce the boundary conditions in a weak sense.

- The thickness of the boundary strip is adaptively defined in order to avoid unnecessary computations.

- A selection of examples demonstrate the use of hierarchical box splines in isogeometric analysis.