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An explicit hybridizable discontinuous Galerkin method for the acoustic wave equation

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Highlights

- An explicit hybridizable discontinuous Galerkin method is developed for the acoustic wave equation.
- It can yields optimal convergence rates for all the approximate variables.
- It has some superconvergence properties that can be exploited to improve the convergence rate of the solution.
- The method is extended to treat the wave equation with perfectly matched layers

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