

# Lab 10

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**Mixed FEM. deal.II step-20.**

**Advanced Topic in Scientific Computing - SISSA, UniTS, 2024-2025**

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# Assignment

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- Read the documentation of `step-20`.
1. Modify `step-20` so to use matrices and vectors from the `TrilinosWrappers` namespace.
  2. In the `solve()` method, try different solvers and preconditioners in order to detect the combination minimizing the number of linear solver iterations. Focus in particular on Algebraic Multi-Grid (AMG) preconditioners.