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DuMu^x: DUNE for Multi-{Phase, Component, Scale, Physics, ...} Flow and Transport in Porous Media

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DuMu^x, `dumux.org`, DUNE for multi-{phase, component, scale, physics, ...} flow and transport in porous media, is a free and open-source simulator for flow and transport processes in porous media. It is based on the Distributed and Unified Numerics Environment DUNE, `dune-project.org`. Its main intention is to provide a sustainable and consistent framework for the implementation and application of model concepts, constitutive relations, discretizations, and solvers. It has been successfully applied to CO_2 storage scenarios, environmental remediation problems, transport of therapeutic agents through biological tissue, and subsurface-atmosphere coupling. DuMu^x is part of the OPM (Open Porous Media) initiative, `opm-project.org`.