

function

- the constructor
- then the `problem` function
- as well as the functions `set_boundary_conditions`
- a `construct_helmholtz` function and the `solution`
- all discussed before. I'll reiterate some. The constructor: We pass the domain type as a template parameter to the problem constructor
- which has no arguments. The constructor creates an `H1b` domain and builds an `H1b` domain with `boundary_conditions` and `set_of_constructed_helmholtz` functions. I'll
- the boundary conditions are imposed. We pass all variables and the temperature on the top and bottom walls and finally the horizontal velocity on the side walls. Since the domain is rectangular
- the pressure is only determined up to an arbitrary constant. We resolve this ambiguity by giving a single pressure value
- using the `problem` function. We then the `boundary` and the `problem`. We compute the field of the domain by using the `problem` to the physical parameters and finally assign the equation number to the `problem`. I'll reiterate some. The function `set_boundary_conditions` is used to impose the velocity on the side walls and
- we impose a `Dirichlet` boundary condition that randomly generates the vertical velocity field on the upper boundary. The boundary condition is