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1  # Define spaces for the higher-order pressure approximation and Lagrange multipliers
2  DGk1 = FunctionSpace(mesh, "DG", degree + 1)
3  DG0 = FunctionSpace(mesh, "DG", 0)
4  W = DGk1 * DG0
5  p, psi = TrialFunctions(W)
6  w, phi = TestFunctions(W)
7
8  # Create local Slate tensors for the post-processing system
9  K = Tensor((inner(grad(p), grad(w)) + inner(psi, w) + inner(p, phi))*dx)
10 # Use the computed pressure  $p_h$  and flux  $u_h$  in the right-hand side
11 F = Tensor((-inner(u_h, grad(w)) + inner(p_h, phi))*dx)
12 E = K.inv * F
13
14 # Function for the post-processed scalar  $p_h^*$ 
15 p_star = Function(DGk1, name="Post-processed scalar")
16 assemble(E.blocks[0], p_star)      # Assemble only the first field (pressure)

```