



主要的两个控制变量：温度和压力；

设置初始温压；从下到上温度递减；压力递减

设置温压边界条件（上和下边界）

物质从x轴中间分开，左右各一种物质；

主要的不同是hydraulic diffusivity，左边大为1（适合移动？），右边小0.02

但是温度传导率一致，、

不知道Hydraulic storage capacity干嘛用的？？？

#两次解算？？？ *Setup groundwater equations*

```
gwadvDiff = uw.systems.SteadyStateHeat( temperatureField =  
gwPressureField, fn_diffusivity =  
hydraulicDiffusivityMapFn, conditions=[gwPressureBC])  
gwadvDiff = uw.systems.SteadyStateDarcyFlow(  
velocityField=velocityField, pressureField = gwPressureField,  
  
fn_diffusivity=hydraulicDiffusivityMapFn, fn_bodyforce=(0., 0.),  
voro noi_swarm=swarm,  
conditions=gwPressureBC)  
  
gwsolver = uw.systems.Solver(gwadvDiff)  
gwsolver.solve()
```

#Setup temperature advection-diffusion solver

```
tempDiff = uw.systems.SteadyStateHeat( temperatureField,  
fn_diffusivity=thermalDiffusivityMapFn,  
conditions=temperatureBC,  
fn_heating = uw.function.math.dot(-1.*coeff * velocityField, tempGrad))  
  
tempSolver = uw.systems.Solver(tempDiff)  
tempSolver.solve(nonLinearIterate=True)
```