

```

1 // Parameter list for the coupled Allen-Cahn/Cahn-Hilliard example application
2 // All strictly numerical parameters should be set in this file
3
4 // =====
5 // Set the number of dimensions (1, 2, or 3 for a 1D, 2D, or 3D calculation)
6 // =====
7 #define problemDIM 2
8 // =====
9
10 // =====
11 // Set the length of the domain in all three dimensions
12 // =====
13 // Each axes spans from zero to the specified length
14 #define spanX 100.0
15 #define spanY 100.0
16 #define spanZ 100.0
17 // =====
18
19 // =====
20 // Set the element parameters
21 // =====
22 // The number of elements in each direction is 2^(refineFactor) * subdivisions
23 // For optimal performance, use refineFactor primarily to determine the element size
24 #define subdivisionsX 1
25 #define subdivisionsY 1
26 #define subdivisionsZ 1
27 #define refineFactor 7
28
29 // Set the polynomial degree of the element
30 // Suggested values are either 1 or 2
31 #define finiteElementDegree 1
32 // =====
33
34 // =====
35 // Set the time step parameters
36 // =====
37 // The size of the time step
38 #define timeStep 1.0e-3
39
40 // The simulation ends when either timeFinal is reached or the number of time steps
41 // equals timeIncrements
42 #define timeFinal 100.0
43 #define timeIncrements 100000
44 // =====
45
46 // =====
47 // Set the output parameters
48 // =====
49 // Each field in the problem will be output if writeOutput is set to "true"
50 #define writeOutput true
51
52 // Output files are written every skipOutputSteps time steps
53 #define skipOutputSteps 1000
54
55 // =====
56 // Set the flag determining if the total free energy is calculated for each output
57 // =====
58 #define calc_energy true
59 // =====
60

```