

# test\_\_schema

October 15, 2022

```
[1]: import sys
import os

lib_path = os.path.realpath(os.path.join(os.getcwd(), ".."))
if lib_path not in sys.path:
    sys.path = [lib_path] + sys.path
```

```
[2]: from src.main import *

%matplotlib inline
```

```
[3]: Delta = 12.0
```

```
[4]: class DummyProp:
    def __init__(self, Delta):
        self.rho_cp1 = 0.1
        self.rho_cp2 = 1.0
        self.Delta = Delta
```

```
[5]: x = np.linspace(0.5, Delta - 0.5, int(Delta))
phy_prop = DummyProp(Delta)
bulle = Bulles(np.array([[3.75, 7.25]]), Delta=Delta)
print("I : ", bulle.indicatrice_liquide(x))
```

```
I : [1.  1.  1.  0.75 0.  0.  0.  0.75 1.  1.  1.  1. ]
```

```
[6]: j = 5
n = int(2 * Delta * j + 1)
np.seterr(all="ignore")
for _ in range(n):
    bulle.shift(1.0 / j)
    print()
    print("=====")
    print("markers : ", bulle.markers)
    T = get_T_creneau(x, phy_prop=phy_prop, markers=bulle)
    print("T : ", T)
    print("=====")
    print("| Interpolations |")
```

```

print("=====")
for scheme in ["upwind", "center", "center_h", "quick", "weno"]:
    print(scheme + " : ", interpolate(T, schema=scheme))

```

```

=====
markers : [[3.95 7.45]]
T : [0.          0.          0.          0.34482759 1.          1.
      1.          0.89108911 0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.          0.34482759 1.
          1.          1.          0.89108911 0.          0.          0.
          0.          ]
center : [0.          0.          0.          0.17241379 0.67241379 1.
          1.          0.94554455 0.44554455 0.          0.          0.
          0.          ]
center_h : [0.          0.          0.          0.          0.51282051 1.
            1.          0.94240838 0.          0.          0.          0.
            0.          ]
quick : [ 0.          0.          0.          0.1331755  0.34482759 1.
          1.          1.          0.70973936 -0.11138614 0.          0.
          0.          ]
weno : [ 0.00000000e+00  0.00000000e+00 -9.79902817e-13  4.58286068e-11
         6.26244898e-01  1.00000000e+00  1.00000000e+00  9.99999999e-01
         7.97500195e-01 -3.09237345e-13  2.94438458e-14  0.00000000e+00
         0.00000000e+00]

=====
markers : [[4.15 7.65]]
T : [0.          0.          0.          0.          0.98265896 1.
      1.          0.94890511 0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.          0.          0.98265896
          1.          1.          0.94890511 0.          0.          0.
          0.          ]
center : [0.          0.          0.          0.          0.49132948 0.99132948
          1.          0.97445255 0.47445255 0.          0.          0.
          0.          ]
center_h : [0.          0.          0.          0.          0.          0.99125364
            1.          0.97378277 0.          0.          0.          0.
            0.          ]
quick : [ 0.          0.          0.          0.          0.03702638
          0.98265896

```

```

1.      1.      0.84881901 -0.11861314 0.      0.
0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.23433644e-14
1.38197729e-12 9.94219880e-01 1.00292740e+00 9.93386695e-01
9.06209525e-01 -2.51716786e-13 2.43831429e-14 0.00000000e+00
0.00000000e+00]

=====
markers : [[4.35 7.85]]
T : [0.      0.      0.      0.      0.94890511 1.
1.      0.98265896 0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.94890511
1.      1.      0.98265896 0.      0.      0.
0.      ]
center : [0.      0.      0.      0.      0.47445255 0.97445255
1.      0.99132948 0.49132948 0.      0.      0.
0.      ]
center_h : [0.      0.      0.      0.      0.      0.97378277
1.      0.99125364 0.      0.      0.      0.
0.      ]
quick : [ 0.      0.      0.      0.      0.09832136
0.94890511
1.      1.      0.94541478 -0.12283237 0.      0.
0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.70246327e-14
1.55094076e-12 9.82987433e-01 1.00303620e+00 9.94194728e-01
9.68206702e-01 -2.24802505e-13 2.19558186e-14 0.00000000e+00
0.00000000e+00]

=====
markers : [[4.55 8.05]]
T : [0.      0.      0.      0.      0.89108911 1.
1.      1.      0.34482759 0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.89108911
1.      1.      1.      0.34482759 0.      0.
0.      ]
center : [0.      0.      0.      0.      0.44554455 0.94554455
1.      1.      0.67241379 0.17241379 0.      0.
0.      ]
center_h : [0.      0.      0.      0.      0.      0.94240838
1.      1.      0.51282051 0.      0.      0.
0.      ]

```

```

quick : [ 0.          0.          0.          0.          0.17425065
0.89108911
  1.          1.          1.          0.1273076 -0.04310345  0.
  0.          ]
weno : [ 0.00000000e+00  0.00000000e+00  0.00000000e+00 -5.67845598e-14
  1.91465558e-12  9.64165518e-01  1.00000000e+00  1.00000000e+00
  1.00000000e+00  1.16727283e-01 -5.74058317e-12  5.08097757e-13
  0.00000000e+00]

=====
markers : [[4.75 8.25]]
T : [0.          0.          0.          0.          0.76923077  1.
  1.          1.          0.76923077  0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.          0.          0.76923077
  1.          1.          1.          0.76923077  0.          0.
  0.          ]
center : [0.          0.          0.          0.          0.38461538  0.88461538
  1.          1.          0.88461538  0.38461538  0.          0.
  0.          ]
center_h : [0.          0.          0.          0.          0.          0.86956522
  1.          1.          0.86956522  0.          0.          0.
  0.          ]
quick : [ 0.          0.          0.          0.          0.24342635
0.76923077
  1.          1.          1.          0.50146178 -0.09615385  0.
  0.          ]
weno : [ 0.00000000e+00  0.00000000e+00  0.00000000e+00 -8.82720977e-14
  3.20551431e-12  9.32630974e-01  1.00000000e+00  1.00000000e+00
  1.00000000e+00  5.34457796e-01 -5.08907643e-13  4.57707173e-14
  0.00000000e+00]

=====
markers : [[4.95 8.45]]
T : [0.          0.          0.          0.          0.34482759  1.
  1.          1.          0.89108911  0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.          0.          0.34482759
  1.          1.          1.          0.89108911  0.          0.
  0.          ]
center : [0.          0.          0.          0.          0.17241379  0.67241379
  1.          1.          0.94554455  0.44554455  0.          0.
  0.          ]
center_h : [0.          0.          0.          0.          0.          0.51282051

```

```

1.      1.      0.94240838 0.      0.      0.
0.      ]
quick : [ 0.      0.      0.      0.      0.1331755
0.34482759
1.      1.      1.      0.70973936 -0.11138614 0.
0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 -9.79902817e-13
4.58286068e-11 6.26244898e-01 1.00000000e+00 1.00000000e+00
9.99999999e-01 7.97500195e-01 -3.09237345e-13 2.94438458e-14
0.00000000e+00]

=====
markers : [[5.15 8.65]]
T : [0.      0.      0.      0.      0.      0.98265896
1.      1.      0.94890511 0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.
0.98265896 1.      1.      0.94890511 0.      0.
0.      ]
center : [0.      0.      0.      0.      0.      0.49132948
0.99132948 1.      0.97445255 0.47445255 0.      0.
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.99125364 1.      0.97378277 0.      0.      0.
0.      ]
quick : [ 0.      0.      0.      0.      0.
0.03702638
0.98265896 1.      1.      0.84881901 -0.11861314 0.
0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.23433644e-14 1.38197729e-12 9.94219880e-01 1.00292740e+00
9.93386695e-01 9.06209525e-01 -2.51716786e-13 2.43831429e-14
0.00000000e+00]

=====
markers : [[5.35 8.85]]
T : [0.      0.      0.      0.      0.      0.94890511
1.      1.      0.98265896 0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.
0.94890511 1.      1.      0.98265896 0.      0.
0.      ]
center : [0.      0.      0.      0.      0.      0.47445255
0.97445255 1.      0.99132948 0.49132948 0.      0.
0.      ]

```

```

0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.97378277 1.      0.99125364 0.      0.      0.
0.      ]
quick : [ 0.      0.      0.      0.      0.
0.09832136
0.94890511 1.      1.      0.94541478 -0.12283237 0.
0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.70246327e-14 1.55094076e-12 9.82987433e-01 1.00303620e+00
9.94194728e-01 9.68206702e-01 -2.24802505e-13 2.19558186e-14
0.00000000e+00]

=====
markers : [[5.55 9.05]]
T : [0.      0.      0.      0.      0.      0.89108911
1.      1.      1.      0.34482759 0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.
0.89108911 1.      1.      1.      0.34482759 0.
0.      ]
center : [0.      0.      0.      0.      0.      0.44554455
0.94554455 1.      1.      0.67241379 0.17241379 0.
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.94240838 1.      1.      0.51282051 0.      0.
0.      ]
quick : [ 0.      0.      0.      0.      0.
0.17425065
0.89108911 1.      1.      1.      0.1273076 -0.04310345
0.      ]
weno : [ 5.08097757e-13 0.00000000e+00 0.00000000e+00 0.00000000e+00
-5.67845598e-14 1.91465558e-12 9.64165518e-01 1.00000000e+00
1.00000000e+00 1.00000000e+00 1.16727283e-01 -5.74058317e-12
5.08097757e-13]

=====
markers : [[5.75 9.25]]
T : [0.      0.      0.      0.      0.      0.76923077
1.      1.      1.      0.76923077 0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.
0.76923077 1.      1.      1.      0.76923077 0.
0.      ]

```

```

center : [0.          0.          0.          0.          0.          0.38461538
0.88461538 1.          1.          0.88461538 0.38461538 0.
0.          ]
center_h : [0.          0.          0.          0.          0.          0.
0.86956522 1.          1.          0.86956522 0.          0.
0.          ]
quick : [ 0.          0.          0.          0.          0.
0.24342635
0.76923077 1.          1.          1.          0.50146178 -0.09615385
0.          ]
weno : [ 4.57707173e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
-8.82720977e-14 3.20551431e-12 9.32630974e-01 1.00000000e+00
1.00000000e+00 1.00000000e+00 5.34457796e-01 -5.08907643e-13
4.57707173e-14]

```

=====

```

markers : [[5.95 9.45]]

```

```

T : [0.          0.          0.          0.          0.          0.34482759
1.          1.          1.          0.89108911 0.          0.          ]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.          0.          0.          0.          0.          0.
0.34482759 1.          1.          1.          0.89108911 0.
0.          ]
center : [0.          0.          0.          0.          0.          0.17241379
0.67241379 1.          1.          0.94554455 0.44554455 0.
0.          ]
center_h : [0.          0.          0.          0.          0.          0.
0.51282051 1.          1.          0.94240838 0.          0.
0.          ]
quick : [ 0.          0.          0.          0.          0.          0.1331755
0.34482759 1.          1.          1.          0.70973936 -0.11138614
0.          ]
weno : [ 2.94438458e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
-9.79902817e-13 4.58286068e-11 6.26244898e-01 1.00000000e+00
1.00000000e+00 9.99999999e-01 7.97500195e-01 -3.09237345e-13
2.94438458e-14]

```

=====

```

markers : [[6.15 9.65]]

```

```

T : [0.          0.          0.          0.          0.          0.
0.98265896 1.          1.          0.94890511 0.          0.          ]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.          0.          0.          0.          0.          0.
0.          0.98265896 1.          1.          0.94890511 0.

```

```

0.      ]
center : [0.      0.      0.      0.      0.      0.
0.49132948 0.99132948 1.      0.97445255 0.47445255 0.
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.99125364 1.      0.97378277 0.      0.
0.      ]
quick : [ 0.      0.      0.      0.      0.      0.
0.03702638 0.98265896 1.      1.      0.84881901 -0.11861314
0.      ]
weno : [ 2.43831429e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
0.00000000e+00 -4.23433644e-14 1.38197729e-12 9.94219880e-01
1.00292740e+00 9.93386695e-01 9.06209525e-01 -2.51716786e-13
2.43831429e-14]

```

=====

```

markers : [[6.35 9.85]]
T : [0.      0.      0.      0.      0.      0.
0.94890511 1.      1.      0.98265896 0.      0.      ]

```

=====

| Interpolations |

=====

```

upwind : [0.      0.      0.      0.      0.      0.
0.      0.94890511 1.      1.      0.98265896 0.
0.      ]
center : [0.      0.      0.      0.      0.      0.
0.47445255 0.97445255 1.      0.99132948 0.49132948 0.
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.97378277 1.      0.99125364 0.      0.
0.      ]
quick : [ 0.      0.      0.      0.      0.      0.
0.09832136 0.94890511 1.      1.      0.94541478 -0.12283237
0.      ]
weno : [ 2.19558186e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
0.00000000e+00 -4.70246327e-14 1.55094076e-12 9.82987433e-01
1.00303620e+00 9.94194728e-01 9.68206702e-01 -2.24802505e-13
2.19558186e-14]

```

=====

```

markers : [[ 6.55 10.05]]
T : [0.      0.      0.      0.      0.      0.
0.89108911 1.      1.      1.      0.34482759 0.      ]

```

=====

| Interpolations |

=====

```

upwind : [0.      0.      0.      0.      0.      0.
0.      0.89108911 1.      1.      1.      0.34482759

```



```

0.      ]
center : [0.      0.      0.      0.      0.      0.
0.44554455 0.94554455 1.      1.      0.67241379 0.17241379
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.94240838 1.      1.      0.51282051 0.
0.      ]
quick : [-0.04310345 0.      0.      0.      0.      0.
0.17425065 0.89108911 1.      1.      1.      0.1273076
-0.04310345]
weno : [-5.74058317e-12 5.08097757e-13 0.00000000e+00 0.00000000e+00
0.00000000e+00 -5.67845598e-14 1.91465558e-12 9.64165518e-01
1.00000000e+00 1.00000000e+00 1.00000000e+00 1.16727283e-01
-5.74058317e-12]

```

=====

```
markers : [[ 6.75 10.25]]
```

```
T : [0.      0.      0.      0.      0.      0.
0.76923077 1.      1.      1.      0.76923077 0.      ]
```

=====

```
| Interpolations |
```

=====

```
upwind : [0.      0.      0.      0.      0.      0.
0.      0.76923077 1.      1.      1.      0.76923077
0.      ]
```

```
center : [0.      0.      0.      0.      0.      0.
0.38461538 0.88461538 1.      1.      0.88461538 0.38461538
0.      ]
```

```
center_h : [0.      0.      0.      0.      0.      0.
0.      0.86956522 1.      1.      0.86956522 0.
0.      ]
```

```
quick : [-0.09615385 0.      0.      0.      0.      0.
0.24342635 0.76923077 1.      1.      1.      0.50146178
-0.09615385]
```

```
weno : [-5.08907643e-13 4.57707173e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00 -8.82720977e-14 3.20551431e-12 9.32630974e-01
1.00000000e+00 1.00000000e+00 1.00000000e+00 5.34457796e-01
-5.08907643e-13]
```

=====

```
markers : [[ 6.95 10.45]]
```

```
T : [0.      0.      0.      0.      0.      0.
0.34482759 1.      1.      1.      0.89108911 0.      ]
```

=====

```
| Interpolations |
```

=====

```
upwind : [0.      0.      0.      0.      0.      0.
0.      0.34482759 1.      1.      1.      0.89108911
```

```

0.      ]
center : [0.      0.      0.      0.      0.      0.
0.17241379 0.67241379 1.      1.      0.94554455 0.44554455
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.51282051 1.      1.      0.94240838 0.
0.      ]
quick : [-0.11138614 0.      0.      0.      0.      0.
0.1331755 0.34482759 1.      1.      1.      0.70973936
-0.11138614]
weno : [-3.09237345e-13 2.94438458e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00 -9.79902817e-13 4.58286068e-11 6.26244898e-01
1.00000000e+00 1.00000000e+00 9.99999999e-01 7.97500195e-01
-3.09237345e-13]

```

```

=====
markers : [[ 7.15 10.65]]
T : [0.      0.      0.      0.      0.      0.
0.      0.98265896 1.      1.      0.94890511 0.      ]
=====

```

| Interpolations |

```

=====
upwind : [0.      0.      0.      0.      0.      0.
0.      0.      0.98265896 1.      1.      0.94890511
0.      ]
center : [0.      0.      0.      0.      0.      0.
0.      0.49132948 0.99132948 1.      0.97445255 0.47445255
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.      0.99125364 1.      0.97378277 0.
0.      ]
quick : [-0.11861314 0.      0.      0.      0.      0.
0.      0.03702638 0.98265896 1.      1.      0.84881901
-0.11861314]
weno : [-2.51716786e-13 2.43831429e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00 0.00000000e+00 -4.23433644e-14 1.38197729e-12
9.94219880e-01 1.00292740e+00 9.93386695e-01 9.06209525e-01
-2.51716786e-13]

```

```

=====
markers : [[ 7.35 10.85]]
T : [0.      0.      0.      0.      0.      0.
0.      0.94890511 1.      1.      0.98265896 0.      ]
=====

```

| Interpolations |

```

=====
upwind : [0.      0.      0.      0.      0.      0.
0.      0.      0.94890511 1.      1.      0.98265896

```

```

0.      ]
center : [0.      0.      0.      0.      0.      0.
0.      0.47445255 0.97445255 1.      0.99132948 0.49132948
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.      0.97378277 1.      0.99125364 0.
0.      ]
quick : [-0.12283237 0.      0.      0.      0.      0.
0.      0.09832136 0.94890511 1.      1.      0.94541478
-0.12283237]
weno : [-2.24802505e-13 2.19558186e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00 0.00000000e+00 -4.70246327e-14 1.55094076e-12
9.82987433e-01 1.00303620e+00 9.94194728e-01 9.68206702e-01
-2.24802505e-13]

```

=====

```
markers : [[ 7.55 11.05]]
```

```
T : [0.      0.      0.      0.      0.      0.
0.      0.89108911 1.      1.      1.      0.34482759]
```

=====

```
| Interpolations |
```

=====

```
upwind : [0.34482759 0.      0.      0.      0.      0.
0.      0.      0.89108911 1.      1.      1.
0.34482759]
```

```
center : [0.17241379 0.      0.      0.      0.      0.
0.      0.44554455 0.94554455 1.      1.      0.67241379
0.17241379]
```

```
center_h : [0.      0.      0.      0.      0.      0.
0.      0.      0.94240838 1.      1.      0.51282051
0.      ]
```

```
quick : [ 0.1273076 -0.04310345 0.      0.      0.      0.
0.      0.17425065 0.89108911 1.      1.      1.
0.1273076 ]
```

```
weno : [ 1.16727283e-01 -5.74058317e-12 5.08097757e-13 0.00000000e+00
0.00000000e+00 0.00000000e+00 -5.67845598e-14 1.91465558e-12
9.64165518e-01 1.00000000e+00 1.00000000e+00 1.00000000e+00
1.16727283e-01]
```

=====

```
markers : [[ 7.75 11.25]]
```

```
T : [0.      0.      0.      0.      0.      0.
0.      0.76923077 1.      1.      1.      0.76923077]
```

=====

```
| Interpolations |
```

=====

```
upwind : [0.76923077 0.      0.      0.      0.      0.
0.      0.      0.76923077 1.      1.      1.]
```

```

0.76923077]
center : [0.38461538 0.          0.          0.          0.          0.
0.          0.38461538 0.88461538 1.          1.          0.88461538
0.38461538]
center_h : [0.          0.          0.          0.          0.          0.
0.          0.          0.86956522 1.          1.          0.86956522
0.          ]
quick : [ 0.50146178 -0.09615385  0.          0.          0.          0.
0.          0.24342635  0.76923077  1.          1.          1.
0.50146178]
weno : [ 5.34457796e-01 -5.08907643e-13  4.57707173e-14  0.00000000e+00
0.00000000e+00  0.00000000e+00 -8.82720977e-14  3.20551431e-12
9.32630974e-01  1.00000000e+00  1.00000000e+00  1.00000000e+00
5.34457796e-01]

```

```

=====
markers : [[ 7.95 11.45]]
T : [0.          0.          0.          0.          0.          0.
0.          0.34482759 1.          1.          1.          0.89108911]
=====
| Interpolations |
=====
upwind : [0.89108911 0.          0.          0.          0.          0.
0.          0.          0.34482759 1.          1.          1.
0.89108911]
center : [0.44554455 0.          0.          0.          0.          0.
0.          0.17241379 0.67241379 1.          1.          0.94554455
0.44554455]
center_h : [0.          0.          0.          0.          0.          0.
0.          0.          0.51282051 1.          1.          0.94240838
0.          ]
quick : [ 0.70973936 -0.11138614  0.          0.          0.          0.
0.          0.1331755  0.34482759  1.          1.          1.
0.70973936]
weno : [ 7.97500195e-01 -3.09237345e-13  2.94438458e-14  0.00000000e+00
0.00000000e+00  0.00000000e+00 -9.79902817e-13  4.58286068e-11
6.26244898e-01  1.00000000e+00  1.00000000e+00  9.99999999e-01
7.97500195e-01]

```

```

=====
markers : [[ 8.15 11.65]]
T : [0.          0.          0.          0.          0.          0.
0.          0.          0.98265896 1.          1.          0.94890511]
=====
| Interpolations |
=====
upwind : [0.94890511 0.          0.          0.          0.          0.
0.          0.          0.          0.98265896 1.          1.

```

```

0.94890511]
center : [0.47445255 0.          0.          0.          0.          0.
0.          0.          0.49132948 0.99132948 1.          0.97445255
0.47445255]
center_h : [0.          0.          0.          0.          0.          0.
0.          0.          0.          0.99125364 1.          0.97378277
0.          ]
quick : [ 0.84881901 -0.11861314  0.          0.          0.          0.
0.          0.          0.03702638  0.98265896  1.          1.
0.84881901]
weno : [ 9.06209525e-01 -2.51716786e-13  2.43831429e-14  0.00000000e+00
0.00000000e+00  0.00000000e+00  0.00000000e+00 -4.23433644e-14
1.38197729e-12  9.94219880e-01  1.00292740e+00  9.93386695e-01
9.06209525e-01]

```

```

=====
markers : [[ 8.35 11.85]]
T : [0.          0.          0.          0.          0.          0.
0.          0.          0.94890511 1.          1.          0.98265896]
=====

```

| Interpolations |

```

=====
upwind : [0.98265896 0.          0.          0.          0.          0.
0.          0.          0.          0.94890511 1.          1.
0.98265896]
center : [0.49132948 0.          0.          0.          0.          0.
0.          0.          0.47445255 0.97445255 1.          0.99132948
0.49132948]
center_h : [0.          0.          0.          0.          0.          0.
0.          0.          0.          0.97378277 1.          0.99125364
0.          ]
quick : [ 0.94541478 -0.12283237  0.          0.          0.          0.
0.          0.          0.09832136  0.94890511  1.          1.
0.94541478]
weno : [ 9.68206702e-01 -2.24802505e-13  2.19558186e-14  0.00000000e+00
0.00000000e+00  0.00000000e+00  0.00000000e+00 -4.70246327e-14
1.55094076e-12  9.82987433e-01  1.00303620e+00  9.94194728e-01
9.68206702e-01]

```

```

=====
markers : [[8.55 0.05]]
T : [0.34482759 0.          0.          0.          0.          0.
0.          0.          0.89108911 1.          1.          1.          ]
=====

```

| Interpolations |

```

=====
upwind : [1.          0.34482759 0.          0.          0.          0.
0.          0.          0.          0.89108911 1.          1.

```

```

1.      ]
center : [0.67241379 0.17241379 0.          0.          0.          0.
0.          0.          0.44554455 0.94554455 1.          1.
0.67241379]
center_h : [0.51282051 0.          0.          0.          0.          0.
0.          0.          0.          0.94240838 1.          1.
0.51282051]
quick : [ 1.          0.1273076 -0.04310345 0.          0.          0.
0.          0.          0.17425065 0.89108911 1.          1.
1.          ]
weno : [ 1.00000000e+00  1.16727283e-01 -5.74058317e-12  5.08097757e-13
0.00000000e+00  0.00000000e+00  0.00000000e+00 -5.67845598e-14
1.91465558e-12  9.64165518e-01  1.00000000e+00  1.00000000e+00
1.00000000e+00]

```

```

=====
markers : [[8.75 0.25]]
T : [0.76923077 0.          0.          0.          0.          0.
0.          0.          0.76923077 1.          1.          1.
]
=====
| Interpolations |
=====
upwind : [1.          0.76923077 0.          0.          0.          0.
0.          0.          0.          0.76923077 1.          1.
1.          ]
center : [0.88461538 0.38461538 0.          0.          0.          0.
0.          0.          0.38461538 0.88461538 1.          1.
0.88461538]
center_h : [0.86956522 0.          0.          0.          0.          0.
0.          0.          0.          0.86956522 1.          1.
0.86956522]
quick : [ 1.          0.50146178 -0.09615385 0.          0.          0.
0.          0.          0.24342635 0.76923077 1.          1.
1.          ]
weno : [ 1.00000000e+00  5.34457796e-01 -5.08907643e-13  4.57707173e-14
0.00000000e+00  0.00000000e+00  0.00000000e+00 -8.82720977e-14
3.20551431e-12  9.32630974e-01  1.00000000e+00  1.00000000e+00
1.00000000e+00]

```

```

=====
markers : [[8.95 0.45]]
T : [0.89108911 0.          0.          0.          0.          0.
0.          0.          0.34482759 1.          1.          1.
]
=====
| Interpolations |
=====
upwind : [1.          0.89108911 0.          0.          0.          0.
0.          0.          0.          0.34482759 1.          1.

```

```

1.      ]
center : [0.94554455 0.44554455 0.          0.          0.          0.
0.          0.          0.17241379 0.67241379 1.          1.
0.94554455]
center_h : [0.94240838 0.          0.          0.          0.          0.
0.          0.          0.          0.51282051 1.          1.
0.94240838]
quick : [ 1.          0.70973936 -0.11138614 0.          0.          0.
0.          0.          0.1331755  0.34482759 1.          1.
1.          ]
weno : [ 9.99999999e-01  7.97500195e-01 -3.09237345e-13  2.94438458e-14
0.00000000e+00 0.00000000e+00 0.00000000e+00 -9.79902817e-13
4.58286068e-11 6.26244898e-01 1.00000000e+00 1.00000000e+00
9.99999999e-01]

```

=====

```

markers : [[9.15 0.65]]
T : [0.94890511 0.          0.          0.          0.          0.
0.          0.          0.          0.98265896 1.          1.          ]

```

=====

| Interpolations |

=====

```

upwind : [1.          0.94890511 0.          0.          0.          0.
0.          0.          0.          0.          0.98265896 1.
1.          ]
center : [0.97445255 0.47445255 0.          0.          0.          0.
0.          0.          0.          0.49132948 0.99132948 1.
0.97445255]
center_h : [0.97378277 0.          0.          0.          0.          0.
0.          0.          0.          0.          0.99125364 1.
0.97378277]
quick : [ 1.          0.84881901 -0.11861314 0.          0.          0.
0.          0.          0.          0.03702638 0.98265896 1.
1.          ]
weno : [ 9.93386695e-01  9.06209525e-01 -2.51716786e-13  2.43831429e-14
0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.23433644e-14 1.38197729e-12 9.94219880e-01 1.00292740e+00
9.93386695e-01]

```

=====

```

markers : [[9.35 0.85]]
T : [0.98265896 0.          0.          0.          0.          0.
0.          0.          0.          0.94890511 1.          1.          ]

```

=====

| Interpolations |

=====

```

upwind : [1.          0.98265896 0.          0.          0.          0.
0.          0.          0.          0.          0.94890511 1.

```

```

1.      ]
center : [0.99132948 0.49132948 0.          0.          0.          0.
0.          0.          0.          0.47445255 0.97445255 1.
0.99132948]
center_h : [0.99125364 0.          0.          0.          0.          0.
0.          0.          0.          0.          0.97378277 1.
0.99125364]
quick : [ 1.          0.94541478 -0.12283237 0.          0.          0.
0.          0.          0.          0.09832136 0.94890511 1.
1.          ]
weno : [ 9.94194728e-01  9.68206702e-01 -2.24802505e-13  2.19558186e-14
0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.70246327e-14 1.55094076e-12 9.82987433e-01 1.00303620e+00
9.94194728e-01]

```

=====

```

markers : [[9.55 1.05]]
T : [1.          0.34482759 0.          0.          0.          0.
0.          0.          0.          0.89108911 1.          1.          ]

```

=====

| Interpolations |

=====

```

upwind : [1.          1.          0.34482759 0.          0.          0.
0.          0.          0.          0.          0.89108911 1.
1.          ]
center : [1.          0.67241379 0.17241379 0.          0.          0.
0.          0.          0.          0.44554455 0.94554455 1.
1.          ]
center_h : [1.          0.51282051 0.          0.          0.          0.
0.          0.          0.          0.          0.94240838 1.
1.          ]
quick : [ 1.          1.          0.1273076 -0.04310345 0.          0.
0.          0.          0.          0.17425065 0.89108911 1.
1.          ]
weno : [ 1.00000000e+00 1.00000000e+00 1.16727283e-01 -5.74058317e-12
5.08097757e-13 0.00000000e+00 0.00000000e+00 0.00000000e+00
-5.67845598e-14 1.91465558e-12 9.64165518e-01 1.00000000e+00
1.00000000e+00]

```

=====

```

markers : [[9.75 1.25]]
T : [1.          0.76923077 0.          0.          0.          0.
0.          0.          0.          0.76923077 1.          1.          ]

```

=====

| Interpolations |

=====

```

upwind : [1.          1.          0.76923077 0.          0.          0.
0.          0.          0.          0.          0.76923077 1.

```



```

1.      ]
center : [1.      0.88461538 0.38461538 0.      0.      0.
0.      0.      0.      0.38461538 0.88461538 1.
1.      ]
center_h : [1.      0.86956522 0.      0.      0.      0.
0.      0.      0.      0.      0.86956522 1.
1.      ]
quick : [ 1.      1.      0.50146178 -0.09615385 0.      0.
0.      0.      0.      0.24342635 0.76923077 1.
1.      ]
weno : [ 1.00000000e+00 1.00000000e+00 5.34457796e-01 -5.08907643e-13
4.57707173e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
-8.82720977e-14 3.20551431e-12 9.32630974e-01 1.00000000e+00
1.00000000e+00]

```

=====

```

markers : [[9.95 1.45]]
T : [1.      0.89108911 0.      0.      0.      0.
0.      0.      0.      0.34482759 1.      1.      ]

```

=====

| Interpolations |

=====

```

upwind : [1.      1.      0.89108911 0.      0.      0.
0.      0.      0.      0.      0.34482759 1.
1.      ]
center : [1.      0.94554455 0.44554455 0.      0.      0.
0.      0.      0.      0.17241379 0.67241379 1.
1.      ]
center_h : [1.      0.94240838 0.      0.      0.      0.
0.      0.      0.      0.      0.51282051 1.
1.      ]
quick : [ 1.      1.      0.70973936 -0.11138614 0.      0.
0.      0.      0.      0.1331755 0.34482759 1.
1.      ]
weno : [ 1.00000000e+00 9.99999999e-01 7.97500195e-01 -3.09237345e-13
2.94438458e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
-9.79902817e-13 4.58286068e-11 6.26244898e-01 1.00000000e+00
1.00000000e+00]

```

=====

```

markers : [[10.15 1.65]]
T : [1.      0.94890511 0.      0.      0.      0.
0.      0.      0.      0.      0.98265896 1.      ]

```

=====

| Interpolations |

=====

```

upwind : [1.      1.      0.94890511 0.      0.      0.
0.      0.      0.      0.      0.      0.98265896

```

```

1.      ]
center : [1.      0.97445255 0.47445255 0.      0.      0.
0.      0.      0.      0.      0.49132948 0.99132948
1.      ]
center_h : [1.      0.97378277 0.      0.      0.      0.
0.      0.      0.      0.      0.      0.99125364
1.      ]
quick : [ 1.      1.      0.84881901 -0.11861314 0.      0.
0.      0.      0.      0.      0.03702638 0.98265896
1.      ]
weno : [ 1.00292740e+00 9.93386695e-01 9.06209525e-01 -2.51716786e-13
2.43831429e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
0.00000000e+00 -4.23433644e-14 1.38197729e-12 9.94219880e-01
1.00292740e+00]

```

```

=====
markers : [[10.35 1.85]]
T : [1.      0.98265896 0.      0.      0.      0.
0.      0.      0.      0.      0.94890511 1.      ]
=====

```

| Interpolations |

```

=====
upwind : [1.      1.      0.98265896 0.      0.      0.
0.      0.      0.      0.      0.      0.94890511
1.      ]
center : [1.      0.99132948 0.49132948 0.      0.      0.
0.      0.      0.      0.      0.47445255 0.97445255
1.      ]
center_h : [1.      0.99125364 0.      0.      0.      0.
0.      0.      0.      0.      0.      0.97378277
1.      ]
quick : [ 1.      1.      0.94541478 -0.12283237 0.      0.
0.      0.      0.      0.      0.09832136 0.94890511
1.      ]
weno : [ 1.00303620e+00 9.94194728e-01 9.68206702e-01 -2.24802505e-13
2.19558186e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
0.00000000e+00 -4.70246327e-14 1.55094076e-12 9.82987433e-01
1.00303620e+00]

```

```

=====
markers : [[10.55 2.05]]
T : [1.      1.      0.34482759 0.      0.      0.
0.      0.      0.      0.      0.89108911 1.      ]
=====

```

| Interpolations |

```

=====
upwind : [1.      1.      1.      0.34482759 0.      0.
0.      0.      0.      0.      0.      0.89108911

```

```

1.      ]
center : [1.      1.      0.67241379 0.17241379 0.      0.
0.      0.      0.      0.      0.44554455 0.94554455
1.      ]
center_h : [1.      1.      0.51282051 0.      0.      0.
0.      0.      0.      0.      0.      0.94240838
1.      ]
quick : [ 1.      1.      1.      0.1273076 -0.04310345 0.
0.      0.      0.      0.      0.17425065 0.89108911
1.      ]
weno : [ 1.00000000e+00 1.00000000e+00 1.00000000e+00 1.16727283e-01
-5.74058317e-12 5.08097757e-13 0.00000000e+00 0.00000000e+00
0.00000000e+00 -5.67845598e-14 1.91465558e-12 9.64165518e-01
1.00000000e+00]

```

```

=====
markers : [[10.75 2.25]]
T : [1.      1.      0.76923077 0.      0.      0.
0.      0.      0.      0.      0.76923077 1.      ]
=====

```

| Interpolations |

```

=====
upwind : [1.      1.      1.      0.76923077 0.      0.
0.      0.      0.      0.      0.      0.76923077
1.      ]
center : [1.      1.      0.88461538 0.38461538 0.      0.
0.      0.      0.      0.      0.38461538 0.88461538
1.      ]
center_h : [1.      1.      0.86956522 0.      0.      0.
0.      0.      0.      0.      0.      0.86956522
1.      ]
quick : [ 1.      1.      1.      0.50146178 -0.09615385 0.
0.      0.      0.      0.      0.24342635 0.76923077
1.      ]
weno : [ 1.00000000e+00 1.00000000e+00 1.00000000e+00 5.34457796e-01
-5.08907643e-13 4.57707173e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00 -8.82720977e-14 3.20551431e-12 9.32630974e-01
1.00000000e+00]

```

```

=====
markers : [[10.95 2.45]]
T : [1.      1.      0.89108911 0.      0.      0.
0.      0.      0.      0.      0.34482759 1.      ]
=====

```

| Interpolations |

```

=====
upwind : [1.      1.      1.      0.89108911 0.      0.
0.      0.      0.      0.      0.      0.34482759

```

```

1.      ]
center : [1.      1.      0.94554455 0.44554455 0.      0.
0.      0.      0.      0.      0.17241379 0.67241379
1.      ]
center_h : [1.      1.      0.94240838 0.      0.      0.
0.      0.      0.      0.      0.      0.51282051
1.      ]
quick : [ 1.      1.      1.      0.70973936 -0.11138614 0.
0.      0.      0.      0.      0.1331755 0.34482759
1.      ]
weno : [ 1.00000000e+00 1.00000000e+00 9.99999999e-01 7.97500195e-01
-3.09237345e-13 2.94438458e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00 -9.79902817e-13 4.58286068e-11 6.26244898e-01
1.00000000e+00]

```

```

=====
markers : [[11.15 2.65]]

```

```

T : [1.      1.      0.94890511 0.      0.      0.
0.      0.      0.      0.      0.      0.98265896]

```

```

=====
| Interpolations |
=====

```

```

upwind : [0.98265896 1.      1.      0.94890511 0.      0.
0.      0.      0.      0.      0.      0.
0.98265896]

```

```

center : [0.99132948 1.      0.97445255 0.47445255 0.      0.
0.      0.      0.      0.      0.      0.49132948
0.99132948]

```

```

center_h : [0.99125364 1.      0.97378277 0.      0.      0.
0.      0.      0.      0.      0.      0.
0.99125364]

```

```

quick : [ 0.98265896 1.      1.      0.84881901 -0.11861314 0.
0.      0.      0.      0.      0.      0.03702638
0.98265896]

```

```

weno : [ 9.94219880e-01 1.00292740e+00 9.93386695e-01 9.06209525e-01
-2.51716786e-13 2.43831429e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00 0.00000000e+00 -4.23433644e-14 1.38197729e-12
9.94219880e-01]

```

```

=====
markers : [[11.35 2.85]]

```

```

T : [1.      1.      0.98265896 0.      0.      0.
0.      0.      0.      0.      0.      0.94890511]

```

```

=====
| Interpolations |
=====

```

```

upwind : [0.94890511 1.      1.      0.98265896 0.      0.
0.      0.      0.      0.      0.      0.

```

```

0.94890511]
center : [0.97445255 1.          0.99132948 0.49132948 0.          0.
0.          0.          0.          0.          0.          0.47445255
0.97445255]
center_h : [0.97378277 1.          0.99125364 0.          0.          0.
0.          0.          0.          0.          0.          0.
0.97378277]
quick : [ 0.94890511 1.          1.          0.94541478 -0.12283237 0.
0.          0.          0.          0.          0.          0.09832136
0.94890511]
weno : [ 9.82987433e-01 1.00303620e+00 9.94194728e-01 9.68206702e-01
-2.24802505e-13 2.19558186e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00 0.00000000e+00 -4.70246327e-14 1.55094076e-12
9.82987433e-01]

```

```

=====
markers : [[11.55 3.05]]
T : [1.          1.          1.          0.34482759 0.          0.
0.          0.          0.          0.          0.          0.89108911]
=====
| Interpolations |
=====
upwind : [0.89108911 1.          1.          1.          0.34482759 0.
0.          0.          0.          0.          0.          0.
0.89108911]
center : [0.94554455 1.          1.          0.67241379 0.17241379 0.
0.          0.          0.          0.          0.          0.44554455
0.94554455]
center_h : [0.94240838 1.          1.          0.51282051 0.          0.
0.          0.          0.          0.          0.          0.
0.94240838]
quick : [ 0.89108911 1.          1.          1.          0.1273076
-0.04310345
0.          0.          0.          0.          0.          0.17425065
0.89108911]
weno : [ 9.64165518e-01 1.00000000e+00 1.00000000e+00 1.00000000e+00
1.16727283e-01 -5.74058317e-12 5.08097757e-13 0.00000000e+00
0.00000000e+00 0.00000000e+00 -5.67845598e-14 1.91465558e-12
9.64165518e-01]

```

```

=====
markers : [[11.75 3.25]]
T : [1.          1.          1.          0.76923077 0.          0.
0.          0.          0.          0.          0.          0.76923077]
=====
| Interpolations |
=====
upwind : [0.76923077 1.          1.          1.          0.76923077 0.

```

```

0.      0.      0.      0.      0.      0.
0.76923077]
center : [0.88461538 1.      1.      0.88461538 0.38461538 0.
0.      0.      0.      0.      0.      0.38461538
0.88461538]
center_h : [0.86956522 1.      1.      0.86956522 0.      0.
0.      0.      0.      0.      0.      0.
0.86956522]
quick : [ 0.76923077 1.      1.      1.      0.50146178
-0.09615385
0.      0.      0.      0.      0.      0.24342635
0.76923077]
weno : [ 9.32630974e-01 1.00000000e+00 1.00000000e+00 1.00000000e+00
5.34457796e-01 -5.08907643e-13 4.57707173e-14 0.00000000e+00
0.00000000e+00 0.00000000e+00 -8.82720977e-14 3.20551431e-12
9.32630974e-01]

```

```

=====
markers : [[11.95 3.45]]
T : [1.      1.      1.      0.89108911 0.      0.
0.      0.      0.      0.      0.      0.34482759]
=====

```

| Interpolations |

```

=====
upwind : [0.34482759 1.      1.      1.      0.89108911 0.
0.      0.      0.      0.      0.      0.
0.34482759]
center : [0.67241379 1.      1.      0.94554455 0.44554455 0.
0.      0.      0.      0.      0.      0.17241379
0.67241379]
center_h : [0.51282051 1.      1.      0.94240838 0.      0.
0.      0.      0.      0.      0.      0.
0.51282051]
quick : [ 0.34482759 1.      1.      1.      0.70973936
-0.11138614
0.      0.      0.      0.      0.      0.1331755
0.34482759]
weno : [ 6.26244898e-01 1.00000000e+00 1.00000000e+00 9.99999999e-01
7.97500195e-01 -3.09237345e-13 2.94438458e-14 0.00000000e+00
0.00000000e+00 0.00000000e+00 -9.79902817e-13 4.58286068e-11
6.26244898e-01]

```

```

=====
markers : [[0.15 3.65]]
T : [0.98265896 1.      1.      0.94890511 0.      0.
0.      0.      0.      0.      0.      0.      ]
=====

```

| Interpolations |

```

=====
upwind : [0.          0.98265896 1.          1.          0.94890511 0.
0.          0.          0.          0.          0.          0.
0.          ]
center : [0.49132948 0.99132948 1.          0.97445255 0.47445255 0.
0.          0.          0.          0.          0.          0.
0.49132948]
center_h : [0.          0.99125364 1.          0.97378277 0.          0.
0.          0.          0.          0.          0.          0.
0.          ]
quick : [ 0.03702638  0.98265896  1.          1.          0.84881901
-0.11861314
0.          0.          0.          0.          0.          0.
0.03702638]
weno : [ 1.38197729e-12  9.94219880e-01  1.00292740e+00  9.93386695e-01
9.06209525e-01 -2.51716786e-13  2.43831429e-14  0.00000000e+00
0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.23433644e-14
1.38197729e-12]

```

```

=====
markers : [[0.35 3.85]]
T : [0.94890511 1.          0.98265896 0.          0.
0.          0.          0.          0.          0.          0.
0.          ]

```

```

=====
| Interpolations |
=====

```

```

upwind : [0.          0.94890511 1.          1.          0.98265896 0.
0.          0.          0.          0.          0.          0.
0.          ]
center : [0.47445255 0.97445255 1.          0.99132948 0.49132948 0.
0.          0.          0.          0.          0.          0.
0.47445255]
center_h : [0.          0.97378277 1.          0.99125364 0.          0.
0.          0.          0.          0.          0.          0.
0.          ]
quick : [ 0.09832136  0.94890511  1.          1.          0.94541478
-0.12283237
0.          0.          0.          0.          0.          0.
0.09832136]
weno : [ 1.55094076e-12  9.82987433e-01  1.00303620e+00  9.94194728e-01
9.68206702e-01 -2.24802505e-13  2.19558186e-14  0.00000000e+00
0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.70246327e-14
1.55094076e-12]

```

```

=====
markers : [[0.55 4.05]]
T : [0.89108911 1.          1.          0.34482759 0.
0.          0.          0.          0.          0.          0.
0.          ]

```

```

=====
| Interpolations |
=====
upwind : [0.          0.89108911 1.          1.          1.          0.34482759
0.          0.          0.          0.          0.          0.
0.          ]
center : [0.44554455 0.94554455 1.          1.          0.67241379 0.17241379
0.          0.          0.          0.          0.          0.
0.44554455]
center_h : [0.          0.94240838 1.          1.          0.51282051 0.
0.          0.          0.          0.          0.          0.
0.          ]
quick : [ 0.17425065 0.89108911 1.          1.          1.          0.1273076
-0.04310345 0.          0.          0.          0.          0.
0.17425065]
weno : [ 1.91465558e-12 9.64165518e-01 1.00000000e+00 1.00000000e+00
1.00000000e+00 1.16727283e-01 -5.74058317e-12 5.08097757e-13
0.00000000e+00 0.00000000e+00 0.00000000e+00 -5.67845598e-14
1.91465558e-12]

```

```

=====
markers : [[0.75 4.25]]
T : [0.76923077 1.          1.          1.          0.76923077 0.
0.          0.          0.          0.          0.          0.
0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.76923077 1.          1.          1.          0.76923077
0.          0.          0.          0.          0.          0.
0.          ]
center : [0.38461538 0.88461538 1.          1.          0.88461538 0.38461538
0.          0.          0.          0.          0.          0.
0.38461538]
center_h : [0.          0.86956522 1.          1.          0.86956522 0.
0.          0.          0.          0.          0.          0.
0.          ]
quick : [ 0.24342635 0.76923077 1.          1.          1.
0.50146178
-0.09615385 0.          0.          0.          0.          0.
0.24342635]
weno : [ 3.20551431e-12 9.32630974e-01 1.00000000e+00 1.00000000e+00
1.00000000e+00 5.34457796e-01 -5.08907643e-13 4.57707173e-14
0.00000000e+00 0.00000000e+00 0.00000000e+00 -8.82720977e-14
3.20551431e-12]

```

```

=====
markers : [[0.95 4.45]]
T : [0.34482759 1.          1.          1.          0.89108911 0.

```



```

0.      0.      0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.34482759 1.      1.      1.      0.89108911
0.      0.      0.      0.      0.      0.
0.      ]
center : [0.17241379 0.67241379 1.      1.      0.94554455 0.44554455
0.      0.      0.      0.      0.      0.
0.17241379]
center_h : [0.      0.51282051 1.      1.      0.94240838 0.
0.      0.      0.      0.      0.      0.
0.      ]
quick : [ 0.1331755  0.34482759 1.      1.      1.
0.70973936
-0.11138614 0.      0.      0.      0.      0.
0.1331755 ]
weno : [ 4.58286068e-11 6.26244898e-01 1.00000000e+00 1.00000000e+00
9.99999999e-01 7.97500195e-01 -3.09237345e-13 2.94438458e-14
0.00000000e+00 0.00000000e+00 0.00000000e+00 -9.79902817e-13
4.58286068e-11]

=====
markers : [[1.15 4.65]]
T : [0.      0.98265896 1.      1.      0.94890511 0.
0.      0.      0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.98265896 1.      1.      0.94890511
0.      0.      0.      0.      0.      0.
0.      ]
center : [0.      0.49132948 0.99132948 1.      0.97445255 0.47445255
0.      0.      0.      0.      0.      0.
0.      ]
center_h : [0.      0.      0.99125364 1.      0.97378277 0.
0.      0.      0.      0.      0.      0.
0.      ]
quick : [ 0.      0.03702638 0.98265896 1.      1.
0.84881901
-0.11861314 0.      0.      0.      0.      0.
0.      ]
weno : [-4.23433644e-14 1.38197729e-12 9.94219880e-01 1.00292740e+00
9.93386695e-01 9.06209525e-01 -2.51716786e-13 2.43831429e-14
0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.23433644e-14]

=====

```

```

markers : [[1.35 4.85]]
T : [0.          0.94890511 1.          1.          0.98265896 0.
      0.          0.          0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.94890511 1.          1.          0.98265896
      0.          0.          0.          0.          0.          0.
      0.          ]
center : [0.          0.47445255 0.97445255 1.          0.99132948 0.49132948
      0.          0.          0.          0.          0.
      0.          ]
center_h : [0.          0.          0.97378277 1.          0.99125364 0.
      0.          0.          0.          0.          0.
      0.          ]
quick : [ 0.          0.09832136 0.94890511 1.          1.
0.94541478
-0.12283237 0.          0.          0.          0.          0.
0.          ]
weno : [-4.70246327e-14 1.55094076e-12 9.82987433e-01 1.00303620e+00
9.94194728e-01 9.68206702e-01 -2.24802505e-13 2.19558186e-14
0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.70246327e-14]

=====
markers : [[1.55 5.05]]
T : [0.          0.89108911 1.          1.          1.          0.34482759
      0.          0.          0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.89108911 1.          1.          1.
0.34482759 0.          0.          0.          0.
0.          ]
center : [0.          0.44554455 0.94554455 1.          1.          0.67241379
0.17241379 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.94240838 1.          1.          0.51282051
0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.17425065 0.89108911 1.          1.          1.
0.1273076 -0.04310345 0.          0.          0.          0.
0.          ]
weno : [-5.67845598e-14 1.91465558e-12 9.64165518e-01 1.00000000e+00
1.00000000e+00 1.00000000e+00 1.16727283e-01 -5.74058317e-12
5.08097757e-13 0.00000000e+00 0.00000000e+00 0.00000000e+00
-5.67845598e-14]

```

```

=====
markers : [[1.75 5.25]]
T : [0.          0.76923077 1.          1.          1.          0.76923077
      0.          0.          0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.76923077 1.          1.          1.
          0.76923077 0.          0.          0.          0.
          0.          ]
center : [0.          0.38461538 0.88461538 1.          1.          0.88461538
          0.38461538 0.          0.          0.          0.
          0.          ]
center_h : [0.          0.          0.86956522 1.          1.          0.86956522
            0.          0.          0.          0.          0.
            0.          ]
quick : [ 0.          0.24342635 0.76923077 1.          1.          1.
          0.50146178 -0.09615385 0.          0.          0.          0.
          0.          ]
weno : [-8.82720977e-14  3.20551431e-12  9.32630974e-01  1.00000000e+00
         1.00000000e+00  1.00000000e+00  5.34457796e-01 -5.08907643e-13
         4.57707173e-14  0.00000000e+00  0.00000000e+00  0.00000000e+00
         -8.82720977e-14]

=====
markers : [[1.95 5.45]]
T : [0.          0.34482759 1.          1.          1.          0.89108911
      0.          0.          0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.34482759 1.          1.          1.
          0.89108911 0.          0.          0.          0.
          0.          ]
center : [0.          0.17241379 0.67241379 1.          1.          0.94554455
          0.44554455 0.          0.          0.          0.
          0.          ]
center_h : [0.          0.          0.51282051 1.          1.          0.94240838
            0.          0.          0.          0.          0.
            0.          ]
quick : [ 0.          0.1331755  0.34482759 1.          1.          1.
          0.70973936 -0.11138614 0.          0.          0.          0.
          0.          ]
weno : [-9.79902817e-13  4.58286068e-11  6.26244898e-01  1.00000000e+00
         1.00000000e+00  9.99999999e-01  7.97500195e-01 -3.09237345e-13
         2.94438458e-14  0.00000000e+00  0.00000000e+00  0.00000000e+00
         -9.79902817e-13]

```

```

=====
markers : [[2.15 5.65]]
T : [0.      0.      0.98265896 1.      1.      0.94890511
      0.      0.      0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.98265896 1.      1.
           0.94890511 0.      0.      0.      0.      0.
           0.      ]
center : [0.      0.      0.49132948 0.99132948 1.      0.97445255
           0.47445255 0.      0.      0.      0.      0.
           0.      ]
center_h : [0.      0.      0.      0.99125364 1.      0.97378277
             0.      0.      0.      0.      0.      0.
             0.      ]
quick : [ 0.      0.      0.03702638 0.98265896 1.      1.
          0.84881901 -0.11861314 0.      0.      0.      0.
          0.      ]
weno : [ 0.00000000e+00 -4.23433644e-14 1.38197729e-12 9.94219880e-01
         1.00292740e+00 9.93386695e-01 9.06209525e-01 -2.51716786e-13
         2.43831429e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
         0.00000000e+00]

```

```

=====
markers : [[2.35 5.85]]
T : [0.      0.      0.94890511 1.      1.      0.98265896
      0.      0.      0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.94890511 1.      1.
           0.98265896 0.      0.      0.      0.      0.
           0.      ]
center : [0.      0.      0.47445255 0.97445255 1.      0.99132948
           0.49132948 0.      0.      0.      0.      0.
           0.      ]
center_h : [0.      0.      0.      0.97378277 1.      0.99125364
             0.      0.      0.      0.      0.      0.
             0.      ]
quick : [ 0.      0.      0.09832136 0.94890511 1.      1.
          0.94541478 -0.12283237 0.      0.      0.      0.
          0.      ]
weno : [ 0.00000000e+00 -4.70246327e-14 1.55094076e-12 9.82987433e-01
         1.00303620e+00 9.94194728e-01 9.68206702e-01 -2.24802505e-13
         2.19558186e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
         0.00000000e+00]

```

```

=====
markers : [[2.55 6.05]]
T : [0.      0.      0.89108911 1.      1.      1.
      0.34482759 0.      0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.89108911 1.      1.
           1.      0.34482759 0.      0.      0.      0.
           0.      ]
center : [0.      0.      0.44554455 0.94554455 1.      1.
           0.67241379 0.17241379 0.      0.      0.
           0.      ]
center_h : [0.      0.      0.      0.94240838 1.      1.
             0.51282051 0.      0.      0.      0.
             0.      ]
quick : [ 0.      0.      0.17425065 0.89108911 1.      1.
          1.      0.1273076 -0.04310345 0.      0.      0.
          0.      ]
weno : [ 0.00000000e+00 -5.67845598e-14 1.91465558e-12 9.64165518e-01
         1.00000000e+00 1.00000000e+00 1.00000000e+00 1.16727283e-01
        -5.74058317e-12 5.08097757e-13 0.00000000e+00 0.00000000e+00
         0.00000000e+00]

```

```

=====
markers : [[2.75 6.25]]
T : [0.      0.      0.76923077 1.      1.      1.
      0.76923077 0.      0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.76923077 1.      1.
           1.      0.76923077 0.      0.      0.      0.
           0.      ]
center : [0.      0.      0.38461538 0.88461538 1.      1.
           0.88461538 0.38461538 0.      0.      0.
           0.      ]
center_h : [0.      0.      0.      0.86956522 1.      1.
             0.86956522 0.      0.      0.      0.
             0.      ]
quick : [ 0.      0.      0.24342635 0.76923077 1.      1.
          1.      0.50146178 -0.09615385 0.      0.      0.
          0.      ]
weno : [ 0.00000000e+00 -8.82720977e-14 3.20551431e-12 9.32630974e-01
         1.00000000e+00 1.00000000e+00 1.00000000e+00 5.34457796e-01
        -5.08907643e-13 4.57707173e-14 0.00000000e+00 0.00000000e+00
         0.00000000e+00]

```

```

=====
markers : [[2.95 6.45]]
T : [0.          0.          0.34482759 1.          1.          1.
      0.89108911 0.          0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.34482759 1.          1.
          1.          0.89108911 0.          0.          0.          0.
          0.          ]
center : [0.          0.          0.17241379 0.67241379 1.          1.
          0.94554455 0.44554455 0.          0.          0.
          0.          ]
center_h : [0.          0.          0.          0.51282051 1.          1.
            0.94240838 0.          0.          0.          0.
            0.          ]
quick : [ 0.          0.          0.1331755  0.34482759 1.          1.
          1.          0.70973936 -0.11138614 0.          0.          0.
          0.          ]
weno : [ 0.00000000e+00 -9.79902817e-13  4.58286068e-11  6.26244898e-01
         1.00000000e+00  1.00000000e+00  9.99999999e-01  7.97500195e-01
        -3.09237345e-13  2.94438458e-14  0.00000000e+00  0.00000000e+00
         0.00000000e+00]

```

```

=====
markers : [[3.15 6.65]]
T : [0.          0.          0.          0.98265896 1.          1.
      0.94890511 0.          0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.          0.98265896 1.
          1.          0.94890511 0.          0.          0.          0.
          0.          ]
center : [0.          0.          0.          0.49132948 0.99132948 1.
          0.97445255 0.47445255 0.          0.          0.
          0.          ]
center_h : [0.          0.          0.          0.          0.99125364 1.
            0.97378277 0.          0.          0.          0.
            0.          ]
quick : [ 0.          0.          0.          0.03702638 0.98265896 1.
          1.          0.84881901 -0.11861314 0.          0.          0.
          0.          ]
weno : [ 0.00000000e+00  0.00000000e+00 -4.23433644e-14  1.38197729e-12
         9.94219880e-01  1.00292740e+00  9.93386695e-01  9.06209525e-01
        -2.51716786e-13  2.43831429e-14  0.00000000e+00  0.00000000e+00
         0.00000000e+00]

```

```

=====
markers : [[3.35 6.85]]
T : [0.          0.          0.          0.94890511 1.          1.
      0.98265896 0.          0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.          0.94890511 1.
          1.          0.98265896 0.          0.          0.          0.
          0.          ]
center : [0.          0.          0.          0.47445255 0.97445255 1.
          0.99132948 0.49132948 0.          0.          0.
          0.          ]
center_h : [0.          0.          0.          0.          0.97378277 1.
            0.99125364 0.          0.          0.          0.
            0.          ]
quick : [ 0.          0.          0.          0.09832136 0.94890511 1.
          1.          0.94541478 -0.12283237 0.          0.          0.
          0.          ]
weno : [ 0.00000000e+00 0.00000000e+00 -4.70246327e-14 1.55094076e-12
         9.82987433e-01 1.00303620e+00 9.94194728e-01 9.68206702e-01
        -2.24802505e-13 2.19558186e-14 0.00000000e+00 0.00000000e+00
         0.00000000e+00]

```

```

=====
markers : [[3.55 7.05]]
T : [0.          0.          0.          0.89108911 1.          1.
      1.          0.34482759 0.          0.          0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.          0.89108911 1.
          1.          1.          0.34482759 0.          0.          0.
          0.          ]
center : [0.          0.          0.          0.44554455 0.94554455 1.
          1.          0.67241379 0.17241379 0.          0.          0.
          0.          ]
center_h : [0.          0.          0.          0.          0.94240838 1.
            1.          0.51282051 0.          0.          0.          0.
            0.          ]
quick : [ 0.          0.          0.          0.17425065 0.89108911 1.
          1.          1.          0.1273076 -0.04310345 0.          0.
          0.          ]
weno : [ 0.00000000e+00 0.00000000e+00 -5.67845598e-14 1.91465558e-12
         9.64165518e-01 1.00000000e+00 1.00000000e+00 1.00000000e+00
         1.16727283e-01 -5.74058317e-12 5.08097757e-13 0.00000000e+00
         0.00000000e+00]

```

```

=====
markers : [[3.75 7.25]]
T : [0.      0.      0.      0.76923077 1.      1.
      1.      0.76923077 0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.76923077 1.
           1.      1.      0.76923077 0.      0.      0.
           0.      ]
center : [0.      0.      0.      0.38461538 0.88461538 1.
           1.      0.88461538 0.38461538 0.      0.      0.
           0.      ]
center_h : [0.      0.      0.      0.      0.86956522 1.
             1.      0.86956522 0.      0.      0.      0.
             0.      ]
quick : [ 0.      0.      0.      0.24342635 0.76923077 1.
          1.      1.      0.50146178 -0.09615385 0.      0.
          0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 -8.82720977e-14 3.20551431e-12
         9.32630974e-01 1.00000000e+00 1.00000000e+00 1.00000000e+00
         5.34457796e-01 -5.08907643e-13 4.57707173e-14 0.00000000e+00
         0.00000000e+00]

```

```

=====
markers : [[3.95 7.45]]
T : [0.      0.      0.      0.34482759 1.      1.
      1.      0.89108911 0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.34482759 1.
           1.      1.      0.89108911 0.      0.      0.
           0.      ]
center : [0.      0.      0.      0.17241379 0.67241379 1.
           1.      0.94554455 0.44554455 0.      0.      0.
           0.      ]
center_h : [0.      0.      0.      0.      0.51282051 1.
             1.      0.94240838 0.      0.      0.      0.
             0.      ]
quick : [ 0.      0.      0.      0.1331755 0.34482759 1.
          1.      1.      0.70973936 -0.11138614 0.      0.
          0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 -9.79902817e-13 4.58286068e-11
         6.26244898e-01 1.00000000e+00 1.00000000e+00 9.99999999e-01
         7.97500195e-01 -3.09237345e-13 2.94438458e-14 0.00000000e+00
         0.00000000e+00]

```



```

=====
markers : [[4.15 7.65]]
T : [0.      0.      0.      0.      0.98265896 1.
      1.      0.94890511 0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.98265896
           1.      1.      0.94890511 0.      0.      0.
           0.      ]
center : [0.      0.      0.      0.      0.49132948 0.99132948
           1.      0.97445255 0.47445255 0.      0.      0.
           0.      ]
center_h : [0.      0.      0.      0.      0.      0.99125364
             1.      0.97378277 0.      0.      0.      0.
             0.      ]
quick : [ 0.      0.      0.      0.      0.03702638
          0.98265896
           1.      1.      0.84881901 -0.11861314 0.      0.
           0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.23433644e-14
         1.38197729e-12 9.94219880e-01 1.00292740e+00 9.93386695e-01
         9.06209525e-01 -2.51716786e-13 2.43831429e-14 0.00000000e+00
         0.00000000e+00]

=====
markers : [[4.35 7.85]]
T : [0.      0.      0.      0.      0.94890511 1.
      1.      0.98265896 0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.94890511
           1.      1.      0.98265896 0.      0.      0.
           0.      ]
center : [0.      0.      0.      0.      0.47445255 0.97445255
           1.      0.99132948 0.49132948 0.      0.      0.
           0.      ]
center_h : [0.      0.      0.      0.      0.      0.97378277
             1.      0.99125364 0.      0.      0.      0.
             0.      ]
quick : [ 0.      0.      0.      0.      0.09832136
          0.94890511
           1.      1.      0.94541478 -0.12283237 0.      0.
           0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.70246327e-14
         1.55094076e-12 9.82987433e-01 1.00303620e+00 9.94194728e-01
         9.68206702e-01 -2.24802505e-13 2.19558186e-14 0.00000000e+00

```

0.00000000e+00]

=====

markers : [[4.55 8.05]]

T : [0. 0. 0. 0. 0.89108911 1.  
1. 1. 0.34482759 0. 0. 0.]

=====

| Interpolations |

=====

upwind : [0. 0. 0. 0. 0. 0.89108911  
1. 1. 1. 0.34482759 0. 0.  
0.]

center : [0. 0. 0. 0. 0.44554455 0.94554455  
1. 1. 0.67241379 0.17241379 0. 0.  
0.]

center\_h : [0. 0. 0. 0. 0. 0.94240838  
1. 1. 0.51282051 0. 0. 0.  
0.]

quick : [ 0. 0. 0. 0. 0.17425065  
0.89108911  
1. 1. 1. 0.1273076 -0.04310345 0.  
0.]

weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 -5.67845598e-14  
1.91465558e-12 9.64165518e-01 1.00000000e+00 1.00000000e+00  
1.00000000e+00 1.16727283e-01 -5.74058317e-12 5.08097757e-13  
0.00000000e+00]

=====

markers : [[4.75 8.25]]

T : [0. 0. 0. 0. 0.76923077 1.  
1. 1. 0.76923077 0. 0. 0.]

=====

| Interpolations |

=====

upwind : [0. 0. 0. 0. 0. 0.76923077  
1. 1. 1. 0.76923077 0. 0.  
0.]

center : [0. 0. 0. 0. 0.38461538 0.88461538  
1. 1. 0.88461538 0.38461538 0. 0.  
0.]

center\_h : [0. 0. 0. 0. 0. 0.86956522  
1. 1. 0.86956522 0. 0. 0.  
0.]

quick : [ 0. 0. 0. 0. 0.24342635  
0.76923077  
1. 1. 1. 0.50146178 -0.09615385 0.  
0.]

weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 -8.82720977e-14

```

3.20551431e-12 9.32630974e-01 1.00000000e+00 1.00000000e+00
1.00000000e+00 5.34457796e-01 -5.08907643e-13 4.57707173e-14
0.00000000e+00]

```

=====

```

markers : [[4.95 8.45]]

```

```

T : [0.      0.      0.      0.      0.34482759 1.
     1.      1.      0.89108911 0.      0.      0.      ]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.      0.      0.      0.      0.      0.34482759
           1.      1.      1.      0.89108911 0.      0.
           0.      ]

```

```

center : [0.      0.      0.      0.      0.17241379 0.67241379
           1.      1.      0.94554455 0.44554455 0.      0.
           0.      ]

```

```

center_h : [0.      0.      0.      0.      0.      0.51282051
             1.      1.      0.94240838 0.      0.      0.
             0.      ]

```

```

quick : [0.      0.      0.      0.      0.1331755
          0.34482759
          1.      1.      1.      0.70973936 -0.11138614 0.
          0.      ]

```

```

weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 -9.79902817e-13
         4.58286068e-11 6.26244898e-01 1.00000000e+00 1.00000000e+00
         9.99999999e-01 7.97500195e-01 -3.09237345e-13 2.94438458e-14
         0.00000000e+00]

```

```

1.      1.      1.      0.70973936 -0.11138614 0.
0.      ]

```

```

weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 -9.79902817e-13
         4.58286068e-11 6.26244898e-01 1.00000000e+00 1.00000000e+00
         9.99999999e-01 7.97500195e-01 -3.09237345e-13 2.94438458e-14
         0.00000000e+00]

```

=====

```

markers : [[5.15 8.65]]

```

```

T : [0.      0.      0.      0.      0.      0.98265896
     1.      1.      0.94890511 0.      0.      0.      ]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.      0.      0.      0.      0.      0.
           0.98265896 1.      1.      0.94890511 0.      0.
           0.      ]

```

```

center : [0.      0.      0.      0.      0.      0.49132948
           0.99132948 1.      0.97445255 0.47445255 0.      0.
           0.      ]

```

```

center_h : [0.      0.      0.      0.      0.      0.
             0.99125364 1.      0.97378277 0.      0.      0.
             0.      ]

```

```

quick : [0.      0.      0.      0.      0.
          0.03702638
          0.98265896 1.      1.      0.84881901 -0.11861314 0.
          0.      ]

```

```

0.03702638
0.98265896 1.      1.      0.84881901 -0.11861314 0.
0.      ]

```

```

0.03702638
0.98265896 1.      1.      0.84881901 -0.11861314 0.
0.      ]

```

```

0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.23433644e-14 1.38197729e-12 9.94219880e-01 1.00292740e+00
9.93386695e-01 9.06209525e-01 -2.51716786e-13 2.43831429e-14
0.00000000e+00]

=====
markers : [[5.35 8.85]]
T : [0.      0.      0.      0.      0.      0.94890511
1.      1.      0.98265896 0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.
0.94890511 1.      1.      0.98265896 0.      0.
0.      ]
center : [0.      0.      0.      0.      0.      0.47445255
0.97445255 1.      0.99132948 0.49132948 0.      0.
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.97378277 1.      0.99125364 0.      0.      0.
0.      ]
quick : [ 0.      0.      0.      0.      0.
0.09832136
0.94890511 1.      1.      0.94541478 -0.12283237 0.
0.      ]
weno : [ 0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.70246327e-14 1.55094076e-12 9.82987433e-01 1.00303620e+00
9.94194728e-01 9.68206702e-01 -2.24802505e-13 2.19558186e-14
0.00000000e+00]

=====
markers : [[5.55 9.05]]
T : [0.      0.      0.      0.      0.      0.89108911
1.      1.      1.      0.34482759 0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.
0.89108911 1.      1.      1.      0.34482759 0.
0.      ]
center : [0.      0.      0.      0.      0.      0.44554455
0.94554455 1.      1.      0.67241379 0.17241379 0.
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.94240838 1.      1.      0.51282051 0.      0.
0.      ]
quick : [ 0.      0.      0.      0.      0.

```

```

0.17425065
  0.89108911  1.          1.          1.          0.1273076 -0.04310345
  0.          ]
weno : [ 5.08097757e-13  0.00000000e+00  0.00000000e+00  0.00000000e+00
-5.67845598e-14  1.91465558e-12  9.64165518e-01  1.00000000e+00
  1.00000000e+00  1.00000000e+00  1.16727283e-01 -5.74058317e-12
  5.08097757e-13]

=====
markers : [[5.75 9.25]]
T : [0.          0.          0.          0.          0.          0.76923077
  1.          1.          1.          0.76923077 0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.          0.          0.
  0.76923077 1.          1.          1.          0.76923077 0.
  0.          ]
center : [0.          0.          0.          0.          0.          0.38461538
  0.88461538 1.          1.          0.88461538 0.38461538 0.
  0.          ]
center_h : [0.          0.          0.          0.          0.          0.
  0.86956522 1.          1.          0.86956522 0.          0.
  0.          ]
quick : [ 0.          0.          0.          0.          0.
0.24342635
  0.76923077 1.          1.          1.          0.50146178 -0.09615385
  0.          ]
weno : [ 4.57707173e-14  0.00000000e+00  0.00000000e+00  0.00000000e+00
-8.82720977e-14  3.20551431e-12  9.32630974e-01  1.00000000e+00
  1.00000000e+00  1.00000000e+00  5.34457796e-01 -5.08907643e-13
  4.57707173e-14]

=====
markers : [[5.95 9.45]]
T : [0.          0.          0.          0.          0.          0.34482759
  1.          1.          1.          0.89108911 0.          0.          ]
=====
| Interpolations |
=====
upwind : [0.          0.          0.          0.          0.          0.
  0.34482759 1.          1.          1.          0.89108911 0.
  0.          ]
center : [0.          0.          0.          0.          0.          0.17241379
  0.67241379 1.          1.          0.94554455 0.44554455 0.
  0.          ]
center_h : [0.          0.          0.          0.          0.          0.
  0.51282051 1.          1.          0.94240838 0.          0.

```

```

0.      ]
quick : [ 0.          0.          0.          0.          0.          0.1331755
0.34482759 1.          1.          1.          0.70973936 -0.11138614
0.      ]
weno : [ 2.94438458e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
-9.79902817e-13 4.58286068e-11 6.26244898e-01 1.00000000e+00
1.00000000e+00 9.99999999e-01 7.97500195e-01 -3.09237345e-13
2.94438458e-14]

```

```

=====
markers : [[6.15 9.65]]
T : [0.          0.          0.          0.          0.          0.
0.98265896 1.          1.          0.94890511 0.          0.          ]
=====

```

| Interpolations |

```

=====
upwind : [0.          0.          0.          0.          0.          0.
0.          0.98265896 1.          1.          0.94890511 0.
0.          ]
center : [0.          0.          0.          0.          0.          0.
0.49132948 0.99132948 1.          0.97445255 0.47445255 0.
0.          ]
center_h : [0.          0.          0.          0.          0.          0.
0.          0.99125364 1.          0.97378277 0.          0.
0.          ]
quick : [ 0.          0.          0.          0.          0.          0.
0.03702638 0.98265896 1.          1.          0.84881901 -0.11861314
0.          ]
weno : [ 2.43831429e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
0.00000000e+00 -4.23433644e-14 1.38197729e-12 9.94219880e-01
1.00292740e+00 9.93386695e-01 9.06209525e-01 -2.51716786e-13
2.43831429e-14]

```

```

=====
markers : [[6.35 9.85]]
T : [0.          0.          0.          0.          0.          0.
0.94890511 1.          1.          0.98265896 0.          0.          ]
=====

```

| Interpolations |

```

=====
upwind : [0.          0.          0.          0.          0.          0.
0.          0.94890511 1.          1.          0.98265896 0.
0.          ]
center : [0.          0.          0.          0.          0.          0.
0.47445255 0.97445255 1.          0.99132948 0.49132948 0.
0.          ]
center_h : [0.          0.          0.          0.          0.          0.
0.          0.97378277 1.          0.99125364 0.          0.
0.          ]

```

```

0.      ]
quick : [ 0.      0.      0.      0.      0.      0.
0.09832136 0.94890511 1.      1.      0.94541478 -0.12283237
0.      ]
weno : [ 2.19558186e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
0.00000000e+00 -4.70246327e-14 1.55094076e-12 9.82987433e-01
1.00303620e+00 9.94194728e-01 9.68206702e-01 -2.24802505e-13
2.19558186e-14]

```

```

=====
markers : [[ 6.55 10.05]]
T : [0.      0.      0.      0.      0.      0.
0.89108911 1.      1.      1.      0.34482759 0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.
0.      0.89108911 1.      1.      1.      0.34482759
0.      ]
center : [0.      0.      0.      0.      0.      0.
0.44554455 0.94554455 1.      1.      0.67241379 0.17241379
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.94240838 1.      1.      0.51282051 0.
0.      ]
quick : [-0.04310345 0.      0.      0.      0.      0.
0.17425065 0.89108911 1.      1.      1.      0.1273076
-0.04310345]
weno : [-5.74058317e-12 5.08097757e-13 0.00000000e+00 0.00000000e+00
0.00000000e+00 -5.67845598e-14 1.91465558e-12 9.64165518e-01
1.00000000e+00 1.00000000e+00 1.00000000e+00 1.16727283e-01
-5.74058317e-12]

```

```

=====
markers : [[ 6.75 10.25]]
T : [0.      0.      0.      0.      0.      0.
0.76923077 1.      1.      1.      0.76923077 0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.      0.      0.      0.      0.
0.      0.76923077 1.      1.      1.      0.76923077
0.      ]
center : [0.      0.      0.      0.      0.      0.
0.38461538 0.88461538 1.      1.      0.88461538 0.38461538
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.86956522 1.      1.      0.86956522 0.
0.      ]

```

```

0.      ]
quick : [-0.09615385  0.      0.      0.      0.      0.
0.24342635  0.76923077  1.      1.      1.      0.50146178
-0.09615385]
weno : [-5.08907643e-13  4.57707173e-14  0.00000000e+00  0.00000000e+00
0.00000000e+00 -8.82720977e-14  3.20551431e-12  9.32630974e-01
1.00000000e+00  1.00000000e+00  1.00000000e+00  5.34457796e-01
-5.08907643e-13]

```

```

=====
markers : [[ 6.95 10.45]]
T : [0.      0.      0.      0.      0.      0.
0.34482759 1.      1.      1.      0.89108911 0.      ]
=====

```

```

| Interpolations |
=====

```

```

upwind : [0.      0.      0.      0.      0.      0.
0.      0.34482759 1.      1.      1.      0.89108911
0.      ]
center : [0.      0.      0.      0.      0.      0.
0.17241379 0.67241379 1.      1.      0.94554455 0.44554455
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.51282051 1.      1.      0.94240838 0.
0.      ]
quick : [-0.11138614  0.      0.      0.      0.      0.
0.1331755  0.34482759 1.      1.      1.      0.70973936
-0.11138614]
weno : [-3.09237345e-13  2.94438458e-14  0.00000000e+00  0.00000000e+00
0.00000000e+00 -9.79902817e-13  4.58286068e-11  6.26244898e-01
1.00000000e+00  1.00000000e+00  9.99999999e-01  7.97500195e-01
-3.09237345e-13]

```

```

=====
markers : [[ 7.15 10.65]]
T : [0.      0.      0.      0.      0.      0.
0.      0.98265896 1.      1.      0.94890511 0.      ]
=====

```

```

| Interpolations |
=====

```

```

upwind : [0.      0.      0.      0.      0.      0.
0.      0.      0.98265896 1.      1.      0.94890511
0.      ]
center : [0.      0.      0.      0.      0.      0.
0.      0.49132948 0.99132948 1.      0.97445255 0.47445255
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.      0.99125364 1.      0.97378277 0.

```



```

0.      ]
quick : [-0.11861314  0.      0.      0.      0.      0.
0.      0.03702638  0.98265896  1.      1.      0.84881901
-0.11861314]
weno : [-2.51716786e-13  2.43831429e-14  0.00000000e+00  0.00000000e+00
0.00000000e+00  0.00000000e+00 -4.23433644e-14  1.38197729e-12
9.94219880e-01  1.00292740e+00  9.93386695e-01  9.06209525e-01
-2.51716786e-13]

```

```

=====
markers : [[ 7.35 10.85]]
T : [0.      0.      0.      0.      0.      0.
0.      0.94890511  1.      1.      0.98265896  0.      ]
=====

```

```

| Interpolations |
=====

```

```

upwind : [0.      0.      0.      0.      0.      0.
0.      0.      0.94890511  1.      1.      0.98265896
0.      ]
center : [0.      0.      0.      0.      0.      0.
0.      0.47445255  0.97445255  1.      0.99132948  0.49132948
0.      ]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.      0.97378277  1.      0.99125364  0.
0.      ]
quick : [-0.12283237  0.      0.      0.      0.      0.
0.      0.09832136  0.94890511  1.      1.      0.94541478
-0.12283237]
weno : [-2.24802505e-13  2.19558186e-14  0.00000000e+00  0.00000000e+00
0.00000000e+00  0.00000000e+00 -4.70246327e-14  1.55094076e-12
9.82987433e-01  1.00303620e+00  9.94194728e-01  9.68206702e-01
-2.24802505e-13]

```

```

=====
markers : [[ 7.55 11.05]]
T : [0.      0.      0.      0.      0.      0.
0.      0.89108911  1.      1.      1.      0.34482759]
=====

```

```

| Interpolations |
=====

```

```

upwind : [0.34482759 0.      0.      0.      0.      0.
0.      0.      0.89108911  1.      1.      1.
0.34482759]
center : [0.17241379 0.      0.      0.      0.      0.
0.      0.44554455  0.94554455  1.      1.      0.67241379
0.17241379]
center_h : [0.      0.      0.      0.      0.      0.
0.      0.      0.94240838  1.      1.      0.51282051]

```

```

0.      ]
quick : [ 0.1273076 -0.04310345 0.      0.      0.      0.
0.      0.17425065 0.89108911 1.      1.      1.
0.1273076 ]
weno : [ 1.16727283e-01 -5.74058317e-12 5.08097757e-13 0.00000000e+00
0.00000000e+00 0.00000000e+00 -5.67845598e-14 1.91465558e-12
9.64165518e-01 1.00000000e+00 1.00000000e+00 1.00000000e+00
1.16727283e-01]

```

=====

```

markers : [[ 7.75 11.25]]

```

```

T : [0.      0.      0.      0.      0.      0.
0.      0.76923077 1.      1.      1.      0.76923077]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.76923077 0.      0.      0.      0.      0.
0.      0.      0.76923077 1.      1.      1.
0.76923077]

```

```

center : [0.38461538 0.      0.      0.      0.      0.
0.      0.38461538 0.88461538 1.      1.      0.88461538
0.38461538]

```

```

center_h : [0.      0.      0.      0.      0.      0.
0.      0.      0.86956522 1.      1.      0.86956522
0.      ]

```

```

quick : [ 0.50146178 -0.09615385 0.      0.      0.      0.
0.      0.24342635 0.76923077 1.      1.      1.
0.50146178]

```

```

weno : [ 5.34457796e-01 -5.08907643e-13 4.57707173e-14 0.00000000e+00
0.00000000e+00 0.00000000e+00 -8.82720977e-14 3.20551431e-12
9.32630974e-01 1.00000000e+00 1.00000000e+00 1.00000000e+00
5.34457796e-01]

```

=====

```

markers : [[ 7.95 11.45]]

```

```

T : [0.      0.      0.      0.      0.      0.
0.      0.34482759 1.      1.      1.      0.89108911]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.89108911 0.      0.      0.      0.      0.
0.      0.      0.34482759 1.      1.      1.
0.89108911]

```

```

center : [0.44554455 0.      0.      0.      0.      0.
0.      0.17241379 0.67241379 1.      1.      0.94554455
0.44554455]

```

```

center_h : [0.      0.      0.      0.      0.      0.
0.      0.      0.51282051 1.      1.      0.94240838]

```

```

0.      ]
quick : [ 0.70973936 -0.11138614  0.          0.          0.          0.
0.          0.1331755  0.34482759  1.          1.          1.
0.70973936]
weno : [ 7.97500195e-01 -3.09237345e-13  2.94438458e-14  0.00000000e+00
0.00000000e+00  0.00000000e+00 -9.79902817e-13  4.58286068e-11
6.26244898e-01  1.00000000e+00  1.00000000e+00  9.99999999e-01
7.97500195e-01]

```

=====

```

markers : [[ 8.15 11.65]]
T : [0.          0.          0.          0.          0.          0.
0.          0.          0.98265896  1.          1.          0.94890511]

```

=====

| Interpolations |

=====

```

upwind : [0.94890511 0.          0.          0.          0.          0.
0.          0.          0.          0.98265896  1.          1.
0.94890511]
center : [0.47445255 0.          0.          0.          0.          0.
0.          0.          0.49132948  0.99132948  1.          0.97445255
0.47445255]
center_h : [0.          0.          0.          0.          0.          0.
0.          0.          0.          0.99125364  1.          0.97378277
0.          ]
quick : [ 0.84881901 -0.11861314  0.          0.          0.          0.
0.          0.          0.03702638  0.98265896  1.          1.
0.84881901]
weno : [ 9.06209525e-01 -2.51716786e-13  2.43831429e-14  0.00000000e+00
0.00000000e+00  0.00000000e+00  0.00000000e+00 -4.23433644e-14
1.38197729e-12  9.94219880e-01  1.00292740e+00  9.93386695e-01
9.06209525e-01]

```

=====

```

markers : [[ 8.35 11.85]]
T : [0.          0.          0.          0.          0.          0.
0.          0.          0.94890511  1.          1.          0.98265896]

```

=====

| Interpolations |

=====

```

upwind : [0.98265896 0.          0.          0.          0.          0.
0.          0.          0.          0.94890511  1.          1.
0.98265896]
center : [0.49132948 0.          0.          0.          0.          0.
0.          0.          0.47445255  0.97445255  1.          0.99132948
0.49132948]
center_h : [0.          0.          0.          0.          0.          0.
0.          0.          0.          0.97378277  1.          0.99125364
0.          ]

```

```

0.      ]
quick : [ 0.94541478 -0.12283237 0.      0.      0.      0.
0.      0.      0.09832136 0.94890511 1.      1.
0.94541478]
weno : [ 9.68206702e-01 -2.24802505e-13 2.19558186e-14 0.00000000e+00
0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.70246327e-14
1.55094076e-12 9.82987433e-01 1.00303620e+00 9.94194728e-01
9.68206702e-01]

```

```

=====
markers : [[8.55 0.05]]
T : [0.34482759 0.      0.      0.      0.      0.
0.      0.      0.89108911 1.      1.      1.      ]
=====

```

```

| Interpolations |
=====

```

```

upwind : [1.      0.34482759 0.      0.      0.      0.
0.      0.      0.      0.89108911 1.      1.
1.      ]
center : [0.67241379 0.17241379 0.      0.      0.      0.
0.      0.      0.44554455 0.94554455 1.      1.
0.67241379]
center_h : [0.51282051 0.      0.      0.      0.      0.
0.      0.      0.      0.94240838 1.      1.
0.51282051]
quick : [ 1.      0.1273076 -0.04310345 0.      0.      0.
0.      0.      0.17425065 0.89108911 1.      1.
1.      ]
weno : [ 1.00000000e+00 1.16727283e-01 -5.74058317e-12 5.08097757e-13
0.00000000e+00 0.00000000e+00 0.00000000e+00 -5.67845598e-14
1.91465558e-12 9.64165518e-01 1.00000000e+00 1.00000000e+00
1.00000000e+00]

```

```

=====
markers : [[8.75 0.25]]
T : [0.76923077 0.      0.      0.      0.      0.
0.      0.      0.76923077 1.      1.      1.      ]
=====

```

```

| Interpolations |
=====

```

```

upwind : [1.      0.76923077 0.      0.      0.      0.
0.      0.      0.      0.76923077 1.      1.
1.      ]
center : [0.88461538 0.38461538 0.      0.      0.      0.
0.      0.      0.38461538 0.88461538 1.      1.
0.88461538]
center_h : [0.86956522 0.      0.      0.      0.      0.
0.      0.      0.      0.86956522 1.      1.

```

```

0.86956522]
quick : [ 1.          0.50146178 -0.09615385  0.          0.          0.
0.          0.          0.24342635  0.76923077  1.          1.
1.          ]
weno : [ 1.00000000e+00  5.34457796e-01 -5.08907643e-13  4.57707173e-14
0.00000000e+00  0.00000000e+00  0.00000000e+00 -8.82720977e-14
3.20551431e-12  9.32630974e-01  1.00000000e+00  1.00000000e+00
1.00000000e+00]

=====
markers : [[8.95 0.45]]
T : [0.89108911 0.          0.          0.          0.          0.
0.          0.          0.34482759 1.          1.          1.          ]
=====
| Interpolations |
=====
upwind : [1.          0.89108911 0.          0.          0.          0.
0.          0.          0.          0.34482759 1.          1.
1.          ]
center : [0.94554455 0.44554455 0.          0.          0.          0.
0.          0.          0.17241379 0.67241379 1.          1.
0.94554455]
center_h : [0.94240838 0.          0.          0.          0.          0.
0.          0.          0.          0.51282051 1.          1.
0.94240838]
quick : [ 1.          0.70973936 -0.11138614  0.          0.          0.
0.          0.          0.1331755  0.34482759  1.          1.
1.          ]
weno : [ 9.99999999e-01  7.97500195e-01 -3.09237345e-13  2.94438458e-14
0.00000000e+00  0.00000000e+00  0.00000000e+00 -9.79902817e-13
4.58286068e-11  6.26244898e-01  1.00000000e+00  1.00000000e+00
9.99999999e-01]

=====
markers : [[9.15 0.65]]
T : [0.94890511 0.          0.          0.          0.          0.
0.          0.          0.          0.98265896 1.          1.          ]
=====
| Interpolations |
=====
upwind : [1.          0.94890511 0.          0.          0.          0.
0.          0.          0.          0.          0.98265896 1.
1.          ]
center : [0.97445255 0.47445255 0.          0.          0.          0.
0.          0.          0.          0.49132948 0.99132948 1.
0.97445255]
center_h : [0.97378277 0.          0.          0.          0.          0.
0.          0.          0.          0.          0.99125364 1.
0.97378277]

```

```

0.97378277]
quick : [ 1.          0.84881901 -0.11861314  0.          0.          0.
0.          0.          0.          0.03702638  0.98265896  1.
1.          ]
weno : [ 9.93386695e-01  9.06209525e-01 -2.51716786e-13  2.43831429e-14
0.00000000e+00  0.00000000e+00  0.00000000e+00  0.00000000e+00
-4.23433644e-14  1.38197729e-12  9.94219880e-01  1.00292740e+00
9.93386695e-01]

=====
markers : [[9.35 0.85]]
T : [0.98265896 0.          0.          0.          0.          0.
0.          0.          0.          0.94890511 1.          1.          ]
=====
| Interpolations |
=====
upwind : [1.          0.98265896 0.          0.          0.          0.
0.          0.          0.          0.          0.94890511 1.
1.          ]
center : [0.99132948 0.49132948 0.          0.          0.          0.
0.          0.          0.          0.47445255 0.97445255 1.
0.99132948]
center_h : [0.99125364 0.          0.          0.          0.          0.
0.          0.          0.          0.          0.97378277 1.
0.99125364]
quick : [ 1.          0.94541478 -0.12283237  0.          0.          0.
0.          0.          0.          0.09832136  0.94890511  1.
1.          ]
weno : [ 9.94194728e-01  9.68206702e-01 -2.24802505e-13  2.19558186e-14
0.00000000e+00  0.00000000e+00  0.00000000e+00  0.00000000e+00
-4.70246327e-14  1.55094076e-12  9.82987433e-01  1.00303620e+00
9.94194728e-01]

=====
markers : [[9.55 1.05]]
T : [1.          0.34482759 0.          0.          0.          0.
0.          0.          0.          0.89108911 1.          1.          ]
=====
| Interpolations |
=====
upwind : [1.          1.          0.34482759 0.          0.          0.
0.          0.          0.          0.          0.89108911 1.
1.          ]
center : [1.          0.67241379 0.17241379 0.          0.          0.
0.          0.          0.          0.44554455 0.94554455 1.
1.          ]
center_h : [1.          0.51282051 0.          0.          0.          0.
0.          0.          0.          0.          0.94240838 1.

```

```

1.      ]
quick : [ 1.          1.          0.1273076 -0.04310345  0.          0.
0.          0.          0.          0.17425065  0.89108911  1.
1.          ]
weno : [ 1.00000000e+00  1.00000000e+00  1.16727283e-01 -5.74058317e-12
5.08097757e-13  0.00000000e+00  0.00000000e+00  0.00000000e+00
-5.67845598e-14  1.91465558e-12  9.64165518e-01  1.00000000e+00
1.00000000e+00]

```

```

=====
markers : [[9.75 1.25]]
T : [1.          0.76923077  0.          0.          0.          0.
0.          0.          0.          0.76923077  1.          1.          ]
=====

```

| Interpolations |

```

=====
upwind : [1.          1.          0.76923077  0.          0.          0.
0.          0.          0.          0.          0.76923077  1.
1.          ]
center : [1.          0.88461538  0.38461538  0.          0.          0.
0.          0.          0.          0.38461538  0.88461538  1.
1.          ]
center_h : [1.          0.86956522  0.          0.          0.          0.
0.          0.          0.          0.          0.86956522  1.
1.          ]
quick : [ 1.          1.          0.50146178 -0.09615385  0.          0.
0.          0.          0.          0.24342635  0.76923077  1.
1.          ]
weno : [ 1.00000000e+00  1.00000000e+00  5.34457796e-01 -5.08907643e-13
4.57707173e-14  0.00000000e+00  0.00000000e+00  0.00000000e+00
-8.82720977e-14  3.20551431e-12  9.32630974e-01  1.00000000e+00
1.00000000e+00]

```

```

=====
markers : [[9.95 1.45]]
T : [1.          0.89108911  0.          0.          0.          0.
0.          0.          0.          0.34482759  1.          1.          ]
=====

```

| Interpolations |

```

=====
upwind : [1.          1.          0.89108911  0.          0.          0.
0.          0.          0.          0.          0.34482759  1.
1.          ]
center : [1.          0.94554455  0.44554455  0.          0.          0.
0.          0.          0.          0.17241379  0.67241379  1.
1.          ]
center_h : [1.          0.94240838  0.          0.          0.          0.
0.          0.          0.          0.          0.51282051  1.

```

```

1.      ]
quick : [ 1.          1.          0.70973936 -0.11138614  0.          0.
0.          0.          0.          0.1331755  0.34482759  1.
1.          ]
weno : [ 1.00000000e+00  9.99999999e-01  7.97500195e-01 -3.09237345e-13
2.94438458e-14  0.00000000e+00  0.00000000e+00  0.00000000e+00
-9.79902817e-13  4.58286068e-11  6.26244898e-01  1.00000000e+00
1.00000000e+00]

```

```

=====
markers : [[10.15  1.65]]
T : [1.          0.94890511  0.          0.          0.          0.
0.          0.          0.          0.          0.98265896  1.          ]
=====

```

| Interpolations |

```

=====
upwind : [1.          1.          0.94890511  0.          0.          0.
0.          0.          0.          0.          0.          0.98265896
1.          ]
center : [1.          0.97445255  0.47445255  0.          0.          0.
0.          0.          0.          0.          0.49132948  0.99132948
1.          ]
center_h : [1.          0.97378277  0.          0.          0.          0.
0.          0.          0.          0.          0.          0.99125364
1.          ]
quick : [ 1.          1.          0.84881901 -0.11861314  0.          0.
0.          0.          0.          0.          0.03702638  0.98265896
1.          ]
weno : [ 1.00292740e+00  9.93386695e-01  9.06209525e-01 -2.51716786e-13
2.43831429e-14  0.00000000e+00  0.00000000e+00  0.00000000e+00
0.00000000e+00 -4.23433644e-14  1.38197729e-12  9.94219880e-01
1.00292740e+00]

```

```

=====
markers : [[10.35  1.85]]
T : [1.          0.98265896  0.          0.          0.          0.
0.          0.          0.          0.          0.94890511  1.          ]
=====

```

| Interpolations |

```

=====
upwind : [1.          1.          0.98265896  0.          0.          0.
0.          0.          0.          0.          0.          0.94890511
1.          ]
center : [1.          0.99132948  0.49132948  0.          0.          0.
0.          0.          0.          0.          0.47445255  0.97445255
1.          ]
center_h : [1.          0.99125364  0.          0.          0.          0.
0.          0.          0.          0.          0.          0.97378277

```



```

1.      ]
quick : [ 1.      1.      0.94541478 -0.12283237  0.      0.
0.      0.      0.      0.      0.09832136  0.94890511
1.      ]
weno : [ 1.00303620e+00  9.94194728e-01  9.68206702e-01 -2.24802505e-13
2.19558186e-14  0.00000000e+00  0.00000000e+00  0.00000000e+00
0.00000000e+00 -4.70246327e-14  1.55094076e-12  9.82987433e-01
1.00303620e+00]

```

=====

```

markers : [[10.55  2.05]]
T : [1.      1.      0.34482759  0.      0.      0.
0.      0.      0.      0.      0.89108911  1.      ]

```

=====

| Interpolations |

=====

```

upwind : [1.      1.      1.      0.34482759  0.      0.
0.      0.      0.      0.      0.      0.89108911
1.      ]
center : [1.      1.      0.67241379  0.17241379  0.      0.
0.      0.      0.      0.      0.44554455  0.94554455
1.      ]
center_h : [1.      1.      0.51282051  0.      0.      0.
0.      0.      0.      0.      0.      0.94240838
1.      ]
quick : [ 1.      1.      1.      0.1273076  -0.04310345  0.
0.      0.      0.      0.      0.17425065  0.89108911
1.      ]
weno : [ 1.00000000e+00  1.00000000e+00  1.00000000e+00  1.16727283e-01
-5.74058317e-12  5.08097757e-13  0.00000000e+00  0.00000000e+00
0.00000000e+00 -5.67845598e-14  1.91465558e-12  9.64165518e-01
1.00000000e+00]

```

=====

```

markers : [[10.75  2.25]]
T : [1.      1.      0.76923077  0.      0.      0.
0.      0.      0.      0.      0.76923077  1.      ]

```

=====

| Interpolations |

=====

```

upwind : [1.      1.      1.      0.76923077  0.      0.
0.      0.      0.      0.      0.      0.76923077
1.      ]
center : [1.      1.      0.88461538  0.38461538  0.      0.
0.      0.      0.      0.      0.38461538  0.88461538
1.      ]
center_h : [1.      1.      0.86956522  0.      0.      0.
0.      0.      0.      0.      0.      0.86956522

```

```

1.      ]
quick : [ 1.          1.          1.          0.50146178 -0.09615385  0.
0.          0.          0.          0.          0.24342635  0.76923077
1.          ]
weno : [ 1.00000000e+00  1.00000000e+00  1.00000000e+00  5.34457796e-01
-5.08907643e-13  4.57707173e-14  0.00000000e+00  0.00000000e+00
0.00000000e+00 -8.82720977e-14  3.20551431e-12  9.32630974e-01
1.00000000e+00]

```

```

=====
markers : [[10.95  2.45]]
T : [1.          1.          0.89108911 0.          0.          0.
0.          0.          0.          0.          0.34482759 1.          ]
=====

```

| Interpolations |

```

=====
upwind : [1.          1.          1.          0.89108911 0.          0.
0.          0.          0.          0.          0.          0.34482759
1.          ]
center : [1.          1.          0.94554455 0.44554455 0.          0.
0.          0.          0.          0.          0.17241379 0.67241379
1.          ]
center_h : [1.          1.          0.94240838 0.          0.          0.
0.          0.          0.          0.          0.          0.51282051
1.          ]
quick : [ 1.          1.          1.          0.70973936 -0.11138614  0.
0.          0.          0.          0.          0.1331755  0.34482759
1.          ]
weno : [ 1.00000000e+00  1.00000000e+00  9.99999999e-01  7.97500195e-01
-3.09237345e-13  2.94438458e-14  0.00000000e+00  0.00000000e+00
0.00000000e+00 -9.79902817e-13  4.58286068e-11  6.26244898e-01
1.00000000e+00]

```

```

=====
markers : [[11.15  2.65]]
T : [1.          1.          0.94890511 0.          0.          0.
0.          0.          0.          0.          0.          0.98265896]
=====

```

| Interpolations |

```

=====
upwind : [0.98265896 1.          1.          0.94890511 0.          0.
0.          0.          0.          0.          0.          0.
0.98265896]
center : [0.99132948 1.          0.97445255 0.47445255 0.          0.
0.          0.          0.          0.          0.          0.49132948
0.99132948]
center_h : [0.99125364 1.          0.97378277 0.          0.          0.
0.          0.          0.          0.          0.          0.

```

```

0.99125364]
quick : [ 0.98265896  1.          1.          0.84881901 -0.11861314  0.
0.          0.          0.          0.          0.          0.03702638
0.98265896]
weno : [ 9.94219880e-01  1.00292740e+00  9.93386695e-01  9.06209525e-01
-2.51716786e-13  2.43831429e-14  0.00000000e+00  0.00000000e+00
0.00000000e+00  0.00000000e+00 -4.23433644e-14  1.38197729e-12
9.94219880e-01]

```

=====

```

markers : [[11.35  2.85]]
T : [1.          1.          0.98265896  0.          0.          0.
0.          0.          0.          0.          0.          0.94890511]

```

=====

| Interpolations |

=====

```

upwind : [0.94890511  1.          1.          0.98265896  0.          0.
0.          0.          0.          0.          0.          0.
0.94890511]
center : [0.97445255  1.          0.99132948  0.49132948  0.          0.
0.          0.          0.          0.          0.          0.47445255
0.97445255]
center_h : [0.97378277  1.          0.99125364  0.          0.          0.
0.          0.          0.          0.          0.          0.
0.97378277]
quick : [ 0.94890511  1.          1.          0.94541478 -0.12283237  0.
0.          0.          0.          0.          0.          0.09832136
0.94890511]
weno : [ 9.82987433e-01  1.00303620e+00  9.94194728e-01  9.68206702e-01
-2.24802505e-13  2.19558186e-14  0.00000000e+00  0.00000000e+00
0.00000000e+00  0.00000000e+00 -4.70246327e-14  1.55094076e-12
9.82987433e-01]

```

=====

```

markers : [[11.55  3.05]]
T : [1.          1.          1.          0.34482759  0.          0.
0.          0.          0.          0.          0.          0.89108911]

```

=====

| Interpolations |

=====

```

upwind : [0.89108911  1.          1.          1.          0.34482759  0.
0.          0.          0.          0.          0.          0.
0.89108911]
center : [0.94554455  1.          1.          0.67241379  0.17241379  0.
0.          0.          0.          0.          0.          0.44554455
0.94554455]
center_h : [0.94240838  1.          1.          0.51282051  0.          0.
0.          0.          0.          0.          0.          0.

```

```

0.94240838]
quick : [ 0.89108911  1.          1.          1.          0.1273076
-0.04310345
0.          0.          0.          0.          0.          0.17425065
0.89108911]
weno : [ 9.64165518e-01  1.00000000e+00  1.00000000e+00  1.00000000e+00
1.16727283e-01 -5.74058317e-12  5.08097757e-13  0.00000000e+00
0.00000000e+00  0.00000000e+00 -5.67845598e-14  1.91465558e-12
9.64165518e-01]

```

```

=====
markers : [[11.75  3.25]]
T : [1.          1.          1.          0.76923077  0.          0.
0.          0.          0.          0.          0.          0.76923077]
=====
| Interpolations |
=====
upwind : [0.76923077  1.          1.          1.          0.76923077  0.
0.          0.          0.          0.          0.          0.
0.76923077]
center : [0.88461538  1.          1.          0.88461538  0.38461538  0.
0.          0.          0.          0.          0.          0.38461538
0.88461538]
center_h : [0.86956522  1.          1.          0.86956522  0.          0.
0.          0.          0.          0.          0.          0.
0.86956522]
quick : [ 0.76923077  1.          1.          1.          0.50146178
-0.09615385
0.          0.          0.          0.          0.          0.24342635
0.76923077]
weno : [ 9.32630974e-01  1.00000000e+00  1.00000000e+00  1.00000000e+00
5.34457796e-01 -5.08907643e-13  4.57707173e-14  0.00000000e+00
0.00000000e+00  0.00000000e+00 -8.82720977e-14  3.20551431e-12
9.32630974e-01]

```

```

=====
markers : [[11.95  3.45]]
T : [1.          1.          1.          0.89108911  0.          0.
0.          0.          0.          0.          0.          0.34482759]
=====
| Interpolations |
=====
upwind : [0.34482759  1.          1.          1.          0.89108911  0.
0.          0.          0.          0.          0.          0.
0.34482759]
center : [0.67241379  1.          1.          0.94554455  0.44554455  0.
0.          0.          0.          0.          0.          0.17241379
0.67241379]

```

```

center_h : [0.51282051 1.          1.          0.94240838 0.          0.
0.          0.          0.          0.          0.          0.
0.51282051]
quick : [ 0.34482759 1.          1.          1.          0.70973936
-0.11138614
0.          0.          0.          0.          0.          0.1331755
0.34482759]
weno : [ 6.26244898e-01 1.00000000e+00 1.00000000e+00 9.99999999e-01
7.97500195e-01 -3.09237345e-13 2.94438458e-14 0.00000000e+00
0.00000000e+00 0.00000000e+00 -9.79902817e-13 4.58286068e-11
6.26244898e-01]

```

=====

```

markers : [[0.15 3.65]]

```

```

T : [0.98265896 1.          1.          0.94890511 0.          0.
0.          0.          0.          0.          0.          0.          ]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.          0.98265896 1.          1.          0.94890511 0.
0.          0.          0.          0.          0.          0.
0.          ]

```

```

center : [0.49132948 0.99132948 1.          0.97445255 0.47445255 0.
0.          0.          0.          0.          0.          0.
0.49132948]

```

```

center_h : [0.          0.99125364 1.          0.97378277 0.          0.
0.          0.          0.          0.          0.          0.
0.          ]

```

```

quick : [ 0.03702638 0.98265896 1.          1.          0.84881901
-0.11861314
0.          0.          0.          0.          0.          0.
0.03702638]

```

```

weno : [ 1.38197729e-12 9.94219880e-01 1.00292740e+00 9.93386695e-01
9.06209525e-01 -2.51716786e-13 2.43831429e-14 0.00000000e+00
0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.23433644e-14
1.38197729e-12]

```

=====

```

markers : [[0.35 3.85]]

```

```

T : [0.94890511 1.          1.          0.98265896 0.          0.
0.          0.          0.          0.          0.          0.          ]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.          0.94890511 1.          1.          0.98265896 0.
0.          0.          0.          0.          0.          0.
0.          ]

```

```

center : [0.47445255 0.97445255 1.          0.99132948 0.49132948 0.

```

```

0.      0.      0.      0.      0.      0.
0.47445255]
center_h : [0.      0.97378277 1.      0.99125364 0.      0.
0.      0.      0.      0.      0.      0.
0.      ]
quick : [ 0.09832136 0.94890511 1.      1.      0.94541478
-0.12283237
0.      0.      0.      0.      0.      0.
0.09832136]
weno : [ 1.55094076e-12 9.82987433e-01 1.00303620e+00 9.94194728e-01
9.68206702e-01 -2.24802505e-13 2.19558186e-14 0.00000000e+00
0.00000000e+00 0.00000000e+00 0.00000000e+00 -4.70246327e-14
1.55094076e-12]

=====
markers : [[0.55 4.05]]
T : [0.89108911 1.      1.      1.      0.34482759 0.
0.      0.      0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.89108911 1.      1.      1.      0.34482759
0.      0.      0.      0.      0.      0.
0.      ]
center : [0.44554455 0.94554455 1.      1.      0.67241379 0.17241379
0.      0.      0.      0.      0.      0.
0.44554455]
center_h : [0.      0.94240838 1.      1.      0.51282051 0.
0.      0.      0.      0.      0.      0.
0.      ]
quick : [ 0.17425065 0.89108911 1.      1.      1.      0.1273076
-0.04310345 0.      0.      0.      0.      0.
0.17425065]
weno : [ 1.91465558e-12 9.64165518e-01 1.00000000e+00 1.00000000e+00
1.00000000e+00 1.16727283e-01 -5.74058317e-12 5.08097757e-13
0.00000000e+00 0.00000000e+00 0.00000000e+00 -5.67845598e-14
1.91465558e-12]

=====
markers : [[0.75 4.25]]
T : [0.76923077 1.      1.      1.      0.76923077 0.
0.      0.      0.      0.      0.      0.      ]
=====
| Interpolations |
=====
upwind : [0.      0.76923077 1.      1.      1.      0.76923077
0.      0.      0.      0.      0.      0.
0.      ]

```

```

center : [0.38461538 0.88461538 1.          1.          0.88461538 0.38461538
0.          0.          0.          0.          0.          0.
0.38461538]
center_h : [0.          0.86956522 1.          1.          0.86956522 0.
0.          0.          0.          0.          0.          0.
0.          ]
quick : [ 0.24342635  0.76923077  1.          1.          1.
0.50146178
-0.09615385  0.          0.          0.          0.          0.
0.24342635]
weno : [ 3.20551431e-12  9.32630974e-01  1.00000000e+00  1.00000000e+00
1.00000000e+00  5.34457796e-01 -5.08907643e-13  4.57707173e-14
0.00000000e+00  0.00000000e+00  0.00000000e+00 -8.82720977e-14
3.20551431e-12]

```

=====

```

markers : [[0.95 4.45]]

```

```

T : [0.34482759 1.          1.          1.          0.89108911 0.
0.          0.          0.          0.          0.          0.          ]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.          0.34482759 1.          1.          1.          0.89108911
0.          0.          0.          0.          0.          0.
0.          ]

```

```

center : [0.17241379 0.67241379 1.          1.          0.94554455 0.44554455
0.          0.          0.          0.          0.          0.
0.17241379]

```

```

center_h : [0.          0.51282051 1.          1.          0.94240838 0.
0.          0.          0.          0.          0.          0.
0.          ]

```

```

quick : [ 0.1331755  0.34482759  1.          1.          1.
0.70973936
-0.11138614  0.          0.          0.          0.          0.
0.1331755 ]

```

```

weno : [ 4.58286068e-11  6.26244898e-01  1.00000000e+00  1.00000000e+00
9.99999999e-01  7.97500195e-01 -3.09237345e-13  2.94438458e-14
0.00000000e+00  0.00000000e+00  0.00000000e+00 -9.79902817e-13
4.58286068e-11]

```

=====

```

markers : [[1.15 4.65]]

```

```

T : [0.          0.98265896 1.          1.          0.94890511 0.
0.          0.          0.          0.          0.          0.          ]

```

=====

```

| Interpolations |

```

=====

```

upwind : [0.          0.          0.98265896 1.          1.          0.94890511

```

```

0.      0.      0.      0.      0.      0.
0.      ]
center : [0.      0.49132948 0.99132948 1.      0.97445255 0.47445255
0.      0.      0.      0.      0.      0.
0.      ]
center_h : [0.      0.      0.99125364 1.      0.97378277 0.
0.      0.      0.      0.      0.      0.
0.      ]
quick : [ 0.      0.03702638 0.98265896 1.      1.
0.84881901
-0.11861314 0.      0.      0.      0.      0.
0.      ]
weno : [-4.23433644e-14 1.38197729e-12 9.94219880e-01 1.00292740e+00
9.93386695e-01 9.06209525e-01 -2.51716786e-13 2.43831429e-14
0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.23433644e-14]

```

=====

```

markers : [[1.35 4.85]]
T : [0.      0.94890511 1.      1.      0.98265896 0.
0.      0.      0.      0.      0.      0.      ]

```

=====

| Interpolations |

=====

```

upwind : [0.      0.      0.94890511 1.      1.      0.98265896
0.      0.      0.      0.      0.      0.
0.      ]
center : [0.      0.47445255 0.97445255 1.      0.99132948 0.49132948
0.      0.      0.      0.      0.      0.
0.      ]
center_h : [0.      0.      0.97378277 1.      0.99125364 0.
0.      0.      0.      0.      0.      0.
0.      ]
quick : [ 0.      0.09832136 0.94890511 1.      1.
0.94541478
-0.12283237 0.      0.      0.      0.      0.
0.      ]
weno : [-4.70246327e-14 1.55094076e-12 9.82987433e-01 1.00303620e+00
9.94194728e-01 9.68206702e-01 -2.24802505e-13 2.19558186e-14
0.00000000e+00 0.00000000e+00 0.00000000e+00 0.00000000e+00
-4.70246327e-14]

```

=====

```

markers : [[1.55 5.05]]
T : [0.      0.89108911 1.      1.      1.      0.34482759
0.      0.      0.      0.      0.      0.      ]

```

=====

| Interpolations |



```

=====
upwind : [0.          0.          0.89108911 1.          1.          1.
0.34482759 0.          0.          0.          0.
0.          ]
center : [0.          0.44554455 0.94554455 1.          1.          0.67241379
0.17241379 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.94240838 1.          1.          0.51282051
0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.17425065 0.89108911 1.          1.          1.
0.1273076 -0.04310345 0.          0.          0.          0.
0.          ]
weno : [-5.67845598e-14 1.91465558e-12 9.64165518e-01 1.00000000e+00
1.00000000e+00 1.00000000e+00 1.16727283e-01 -5.74058317e-12
5.08097757e-13 0.00000000e+00 0.00000000e+00 0.00000000e+00
-5.67845598e-14]

```

```

=====
markers : [[1.75 5.25]]
T : [0.          0.76923077 1.          1.          1.          0.76923077
0.          0.          0.          0.          0.          0.          ]

```

```

=====
| Interpolations |
=====

```

```

upwind : [0.          0.          0.76923077 1.          1.          1.
0.76923077 0.          0.          0.          0.
0.          ]
center : [0.          0.38461538 0.88461538 1.          1.          0.88461538
0.38461538 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.86956522 1.          1.          0.86956522
0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.24342635 0.76923077 1.          1.          1.
0.50146178 -0.09615385 0.          0.          0.          0.
0.          ]
weno : [-8.82720977e-14 3.20551431e-12 9.32630974e-01 1.00000000e+00
1.00000000e+00 1.00000000e+00 5.34457796e-01 -5.08907643e-13
4.57707173e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
-8.82720977e-14]

```

```

=====
markers : [[1.95 5.45]]
T : [0.          0.34482759 1.          1.          1.          0.89108911
0.          0.          0.          0.          0.          0.          ]

```

```

=====
| Interpolations |

```

```

=====
upwind : [0.          0.          0.34482759 1.          1.          1.
0.89108911 0.          0.          0.          0.
0.          ]
center : [0.          0.17241379 0.67241379 1.          1.          0.94554455
0.44554455 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.51282051 1.          1.          0.94240838
0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.1331755   0.34482759 1.          1.          1.
0.70973936 -0.11138614 0.          0.          0.          0.
0.          ]
weno : [-9.79902817e-13  4.58286068e-11  6.26244898e-01  1.00000000e+00
1.00000000e+00  9.99999999e-01  7.97500195e-01 -3.09237345e-13
2.94438458e-14  0.00000000e+00  0.00000000e+00  0.00000000e+00
-9.79902817e-13]

```

```

=====
markers : [[2.15 5.65]]
T : [0.          0.          0.98265896 1.          1.          0.94890511
0.          0.          0.          0.          0.          0.          ]

```

```

=====
| Interpolations |
=====

```

```

upwind : [0.          0.          0.          0.98265896 1.          1.
0.94890511 0.          0.          0.          0.
0.          ]
center : [0.          0.          0.49132948 0.99132948 1.          0.97445255
0.47445255 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.99125364 1.          0.97378277
0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.03702638 0.98265896 1.          1.
0.84881901 -0.11861314 0.          0.          0.          0.
0.          ]
weno : [ 0.00000000e+00 -4.23433644e-14  1.38197729e-12  9.94219880e-01
1.00292740e+00  9.93386695e-01  9.06209525e-01 -2.51716786e-13
2.43831429e-14  0.00000000e+00  0.00000000e+00  0.00000000e+00
0.00000000e+00]

```

```

=====
markers : [[2.35 5.85]]
T : [0.          0.          0.94890511 1.          1.          0.98265896
0.          0.          0.          0.          0.          0.          ]

```

```

=====
| Interpolations |

```

```

=====
upwind : [0.          0.          0.          0.94890511 1.          1.
0.98265896 0.          0.          0.          0.
0.          ]
center : [0.          0.          0.47445255 0.97445255 1.          0.99132948
0.49132948 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.97378277 1.          0.99125364
0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.09832136 0.94890511 1.          1.
0.94541478 -0.12283237 0.          0.          0.
0.          ]
weno : [ 0.00000000e+00 -4.70246327e-14 1.55094076e-12 9.82987433e-01
1.00303620e+00 9.94194728e-01 9.68206702e-01 -2.24802505e-13
2.19558186e-14 0.00000000e+00 0.00000000e+00 0.00000000e+00
0.00000000e+00]

```

```

=====
markers : [[2.55 6.05]]
T : [0.          0.          0.89108911 1.          1.          1.
0.34482759 0.          0.          0.          0.          0.
]

```

```

=====
| Interpolations |
=====

```

```

upwind : [0.          0.          0.          0.89108911 1.          1.
1.          0.34482759 0.          0.          0.
0.          ]
center : [0.          0.          0.44554455 0.94554455 1.          1.
0.67241379 0.17241379 0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.94240838 1.          1.
0.51282051 0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.17425065 0.89108911 1.          1.
1.          0.1273076 -0.04310345 0.          0.
0.          ]
weno : [ 0.00000000e+00 -5.67845598e-14 1.91465558e-12 9.64165518e-01
1.00000000e+00 1.00000000e+00 1.00000000e+00 1.16727283e-01
-5.74058317e-12 5.08097757e-13 0.00000000e+00 0.00000000e+00
0.00000000e+00]

```

```

=====
markers : [[2.75 6.25]]
T : [0.          0.          0.76923077 1.          1.          1.
0.76923077 0.          0.          0.          0.
]

```

```

=====
| Interpolations |

```

```

=====
upwind : [0.          0.          0.          0.76923077 1.          1.
1.          0.76923077 0.          0.          0.          0.
0.          ]
center : [0.          0.          0.38461538 0.88461538 1.          1.
0.88461538 0.38461538 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.86956522 1.          1.
0.86956522 0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.24342635 0.76923077 1.          1.
1.          0.50146178 -0.09615385 0.          0.          0.
0.          ]
weno : [ 0.00000000e+00 -8.82720977e-14 3.20551431e-12 9.32630974e-01
1.00000000e+00 1.00000000e+00 1.00000000e+00 5.34457796e-01
-5.08907643e-13 4.57707173e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00]

```

```

=====
markers : [[2.95 6.45]]
T : [0.          0.          0.34482759 1.          1.          1.
0.89108911 0.          0.          0.          0.          0.
0.          ]

```

```

=====
| Interpolations |
=====

```

```

upwind : [0.          0.          0.          0.34482759 1.          1.
1.          0.89108911 0.          0.          0.          0.
0.          ]
center : [0.          0.          0.17241379 0.67241379 1.          1.
0.94554455 0.44554455 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.51282051 1.          1.
0.94240838 0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.1331755 0.34482759 1.          1.
1.          0.70973936 -0.11138614 0.          0.          0.
0.          ]
weno : [ 0.00000000e+00 -9.79902817e-13 4.58286068e-11 6.26244898e-01
1.00000000e+00 1.00000000e+00 9.99999999e-01 7.97500195e-01
-3.09237345e-13 2.94438458e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00]

```

```

=====
markers : [[3.15 6.65]]
T : [0.          0.          0.          0.98265896 1.          1.
0.94890511 0.          0.          0.          0.          0.
0.          ]

```

```

=====
| Interpolations |

```

```

=====
upwind : [0.          0.          0.          0.          0.98265896 1.
1.          0.94890511 0.          0.          0.          0.
0.          ]
center : [0.          0.          0.          0.49132948 0.99132948 1.
0.97445255 0.47445255 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.          0.99125364 1.
0.97378277 0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.          0.03702638 0.98265896 1.
1.          0.84881901 -0.11861314 0.          0.          0.
0.          ]
weno : [ 0.00000000e+00 0.00000000e+00 -4.23433644e-14 1.38197729e-12
9.94219880e-01 1.00292740e+00 9.93386695e-01 9.06209525e-01
-2.51716786e-13 2.43831429e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00]

```

```

=====
markers : [[3.35 6.85]]
T : [0.          0.          0.          0.94890511 1.          1.
0.98265896 0.          0.          0.          0.          0.          ]

```

```

=====
| Interpolations |
=====

```

```

upwind : [0.          0.          0.          0.          0.94890511 1.
1.          0.98265896 0.          0.          0.          0.
0.          ]
center : [0.          0.          0.          0.47445255 0.97445255 1.
0.99132948 0.49132948 0.          0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.          0.97378277 1.
0.99125364 0.          0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.          0.09832136 0.94890511 1.
1.          0.94541478 -0.12283237 0.          0.          0.
0.          ]
weno : [ 0.00000000e+00 0.00000000e+00 -4.70246327e-14 1.55094076e-12
9.82987433e-01 1.00303620e+00 9.94194728e-01 9.68206702e-01
-2.24802505e-13 2.19558186e-14 0.00000000e+00 0.00000000e+00
0.00000000e+00]

```

```

=====
markers : [[3.55 7.05]]
T : [0.          0.          0.          0.89108911 1.          1.
1.          0.34482759 0.          0.          0.          0.          ]

```

```

=====
| Interpolations |

```

```

=====
upwind : [0.          0.          0.          0.          0.89108911 1.
1.          1.          0.34482759 0.          0.          0.
0.          ]
center : [0.          0.          0.          0.44554455 0.94554455 1.
1.          0.67241379 0.17241379 0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.          0.94240838 1.
1.          0.51282051 0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.          0.17425065 0.89108911 1.
1.          1.          0.1273076 -0.04310345 0.          0.
0.          ]
weno : [ 0.00000000e+00 0.00000000e+00 -5.67845598e-14 1.91465558e-12
9.64165518e-01 1.00000000e+00 1.00000000e+00 1.00000000e+00
1.16727283e-01 -5.74058317e-12 5.08097757e-13 0.00000000e+00
0.00000000e+00]

```

```

=====
markers : [[3.75 7.25]]
T : [0.          0.          0.          0.76923077 1.          1.
1.          0.76923077 0.          0.          0.          0.          ]

```

```

=====
| Interpolations |
=====

```

```

upwind : [0.          0.          0.          0.          0.76923077 1.
1.          1.          0.76923077 0.          0.          0.
0.          ]
center : [0.          0.          0.          0.38461538 0.88461538 1.
1.          0.88461538 0.38461538 0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.          0.86956522 1.
1.          0.86956522 0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.          0.24342635 0.76923077 1.
1.          1.          0.50146178 -0.09615385 0.          0.
0.          ]
weno : [ 0.00000000e+00 0.00000000e+00 -8.82720977e-14 3.20551431e-12
9.32630974e-01 1.00000000e+00 1.00000000e+00 1.00000000e+00
5.34457796e-01 -5.08907643e-13 4.57707173e-14 0.00000000e+00
0.00000000e+00]

```

```

=====
markers : [[3.95 7.45]]
T : [0.          0.          0.          0.34482759 1.          1.
1.          0.89108911 0.          0.          0.          0.          ]

```

```

=====
| Interpolations |

```

```

=====
upwind : [0.          0.          0.          0.          0.34482759 1.
1.          1.          0.89108911 0.          0.          0.
0.          ]
center : [0.          0.          0.          0.17241379 0.67241379 1.
1.          0.94554455 0.44554455 0.          0.          0.
0.          ]
center_h : [0.          0.          0.          0.          0.51282051 1.
1.          0.94240838 0.          0.          0.          0.
0.          ]
quick : [ 0.          0.          0.          0.1331755  0.34482759 1.
1.          1.          0.70973936 -0.11138614 0.          0.
0.          ]
weno : [ 0.00000000e+00 0.00000000e+00 -9.79902817e-13 4.58286068e-11
6.26244898e-01 1.00000000e+00 1.00000000e+00 9.99999999e-01
7.97500195e-01 -3.09237345e-13 2.94438458e-14 0.00000000e+00
0.00000000e+00]

```