**Preliminary Results:**

**Intraoperative data**

**Input shape**: 480\*640

**Input grid**: *discretized\_T\_copped* from p\_spline.py

**Number of labels** = 2

**Coupling strength (\beta)** = 0.3

**Synthetic data**

**Input shape**: 40\*40

**Number of labels** = 2

**Coupling strength (\beta)** = 0.5

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Intraoperative data** |  |  |
| **Inference algorithm** | **Function** | **# iterations** | **Runtime (secs)** | **Minimum Energy** |
| Belief propagation(damping= default) | Potts | 1 | 256.37 | 104611.7653 |
| Belief propagation(damping= 0.05) | Potts | 1 | 257.96 | 105130.8536 |
| TRWS | Potts | 1 | **66.37** | **104574.4006** |
| TRBP (damping= default) | Potts | 1 | 280.83 | 104611.7653 |
| TRBP (damping= 0.05) | Potts | 1 | 284.66 | 105131.1732 |
| GraphCut | Potts | 1 | 0.82 | 104574.4006 |
|  |  |  |  |  |
| **Note**: damping is to reduce oscillations in energies |  |  |  |  |
|  |  |  |  |  |
|  |  | **Synthetic (40\*40 grid)** |  |  |
| **Inference algorithm** | **Function** | **# iterations** | **Runtime (secs)** | **Minimum Energy** |
| Belief propagation(damping= default) | Potts | 1 | 0.98 | 1021.16 |
| Belief propagation(damping= 0.05) | Potts | 1 | 1.06 | 901.17 |
| TRWS | Potts | 1 | **0.037** | 901.17 |
| TRBP (damping= default) | Potts | 1 | 1.23 | 1009.522 |
| TRBP (damping= 0.05) | Potts | 1 | 1.41 | 899.04 |
| GraphCut | Potts | 1 | 0.7 | **789.05** |