**Image Registration**

* **Correlation (AdvancedNormalizedCorrelation) and MI (AdvancedMattesMutualInformation)**

**Note:** these results were obtained using the file “parameter\_correlation.txt”.

BSplineTransform:

In order to compare the different registration metrics: the average value of the different image final results (using the metric: Hausdorff and DICE Score) is obtained.

**Correlation:**

* The average value for the DICE score among all the mask is: 0.1470462372586782
* The respective DICE score results for each mask were: [0.21193756 0.20881459 0.14242253 0.18626463 0.23006714 0.27710713 0.41336104 0.32660498 0.24319784 0.29776123 0.35288538 0.18825741 0.29929306 0.22779514]
* The average values of the DICE and normalized Hausdorff distance: [0.14001783233277587, 0.2890655444610049, 0.29009620336858954, 0.12048358300325088, 0.17807499016222747, 0.2632482340871346, 0.2657738376231402, 0.2383592796239525, 0.26649654377264886, 0.187213544831495, 0.18827259031166338, 0.2711222614631668, 0.23332967225908907, 0.21003504648696608]
* The mean value of the previous average: 0.22439922598479325

**MI:**

* The average value for the DICE score among all the mask is: 0.1470462372586782
* The average values of the DICE and normalized Hausdorff distance: [0.14001783233277587, 0.2890655444610049, 0.29009620336858954, 0.12048358300325088, 0.17807499016222747, 0.2632482340871346, 0.2657738376231402, 0.2383592796239525, 0.26649654377264886, 0.187213544831495, 0.18827259031166338, 0.2711222614631668, 0.23332967225908907, 0.21003504648696608]
* The mean value of the previous average: 0.22439922598479325

It is not important the type of metric used as both for the “parameter\_correlation.txt” file generate the same result. Using B-Splines.

AffineTransform:

**Correlation:**

* The average value for the DICE score among all the mask is: 0.10694995445762699
* The respective DICE score results for each mask were: [0.09883999450160773, 0.11684363291480397, 0.07891510463316725, 0.0973467388080126, 0.10552240741625558, 0.1356451752401318, 0.08623117267669515, 0.11931796255398536, 0.10456268758567797, 0.12498458864309318, 0.11602443520260262, 0.09955100785776495, 0.11980635734879728, 0.09370809702418244]
* The average values of the DICE and normalized Hausdorff distance: [0.14001783233277587, 0.2890655444610049, 0.29009620336858954, 0.12048358300325088, 0.17807499016222747, 0.2632482340871346, 0.2657738376231402, 0.2383592796239525, 0.26649654377264886, 0.187213544831495, 0.18827259031166338, 0.2711222614631668, 0.23332967225908907, 0.21003504648696608]
* The mean value of the previous average: 0.22439922598479325

**MI:**

* The average value for the DICE score among all the mask is: 0.10453018337381915
* The respective DICE score results for each mask were: [0.09898799747719712, 0.12147713633683752, 0.08105333799705945, 0.09514439719454744, 0.10290165523264756, 0.12712138917089727, 0.08619204155384061, 0.11761387827787151, 0.1023269205947862, 0.11136753297808184, 0.116386237376517, 0.09819710562337715, 0.11073041255626488, 0.09392252486354236]
* The average value for the Hausdorff score among all the mask is: 0.29493853074009696
* The respective Hausdorff score results for each mask are: [0.3557515045204387, 0.23518376320038703, 0.3367201236280537, 0.2516285644146915, 0.3509808995606397, 0.23922788742956447, 0.2660514227265788, 0.32079496032617616, 0.38843588872332313, 0.2088051202147676, 0.2567020449244165, 0.3310395004333545, 0.3317945370491141, 0.25602321320985266]
* The average values of the DICE and normalized Hausdorff distance: [0.22729574951102322, 0.1760136980575955, 0.20781761413061048, 0.17448765161135205, 0.22825165348844764, 0.18743653133484814, 0.17614129770163697, 0.22005646144008076, 0.24649928815450056, 0.1668948544289304, 0.18636324006350957, 0.21529525414555972, 0.2258004471989557, 0.17486565511701754]
* The mean value of the previous average: 0.20094424259886204