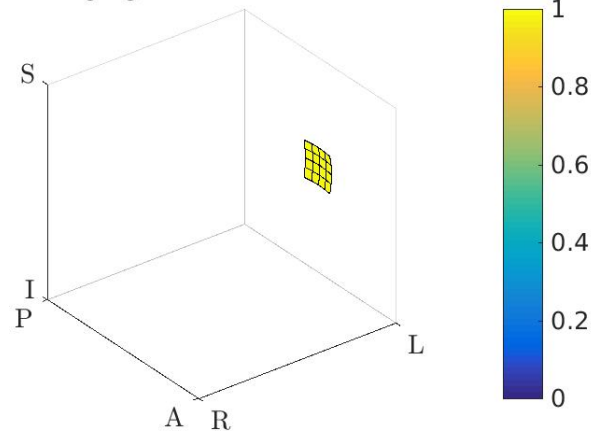


# Tasks

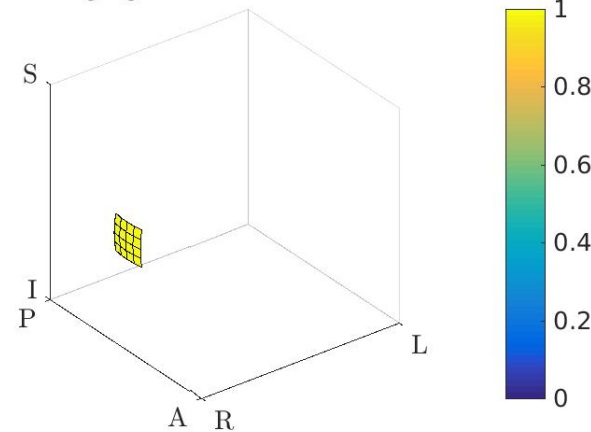
- I created a routine to make polar plots of cross-sections of functions of spherical coordinate angles (yz,xz,xy planes).
- I updated the routine that averages over solid angles.
- I accounted for voxel dimensions.
  - I updated the extraction code to find the voxel dimensions from planC.

# Surfaces for averaging

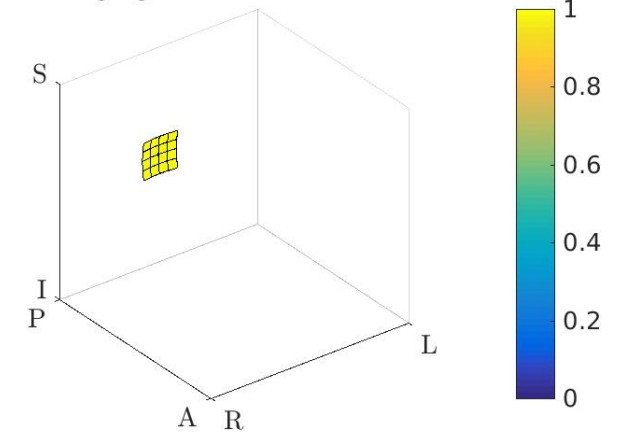
Averaging Surface in Direction L



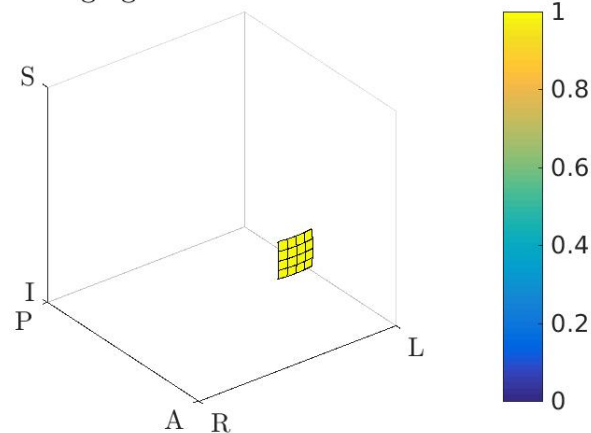
Averaging Surface in Direction R



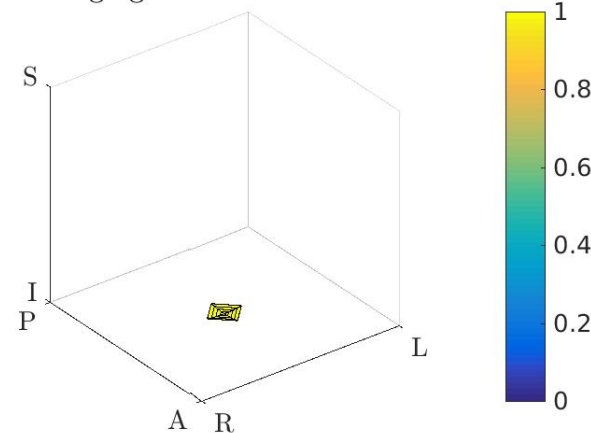
Averaging Surface in Direction P



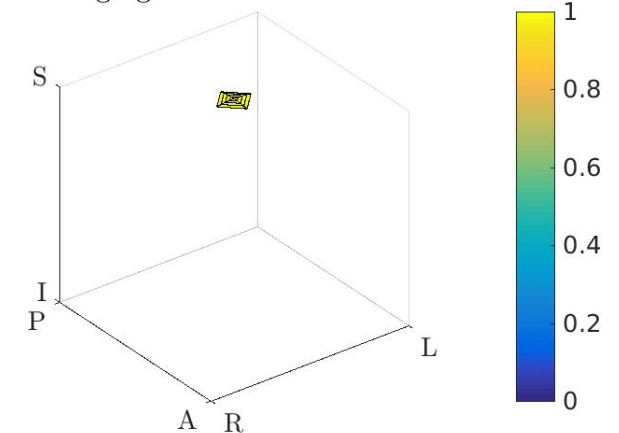
Averaging Surface in Direction A



Averaging Surface in Direction I



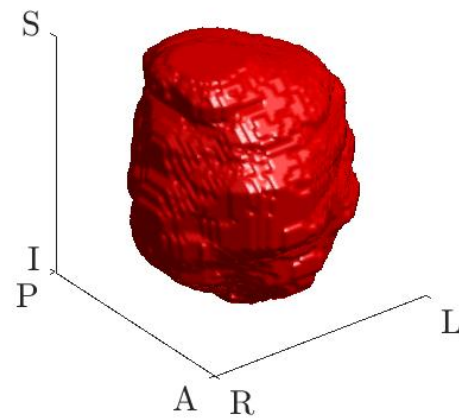
Averaging Surface in Direction S



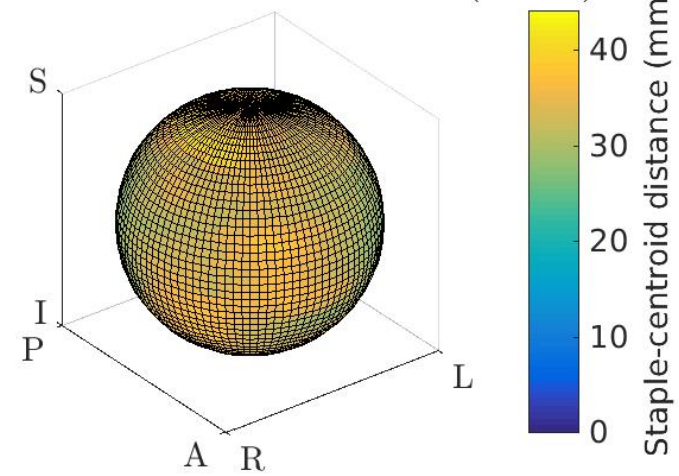
- Not actually cones, as I said before, but “squares” on sphere surface.

# Case 1

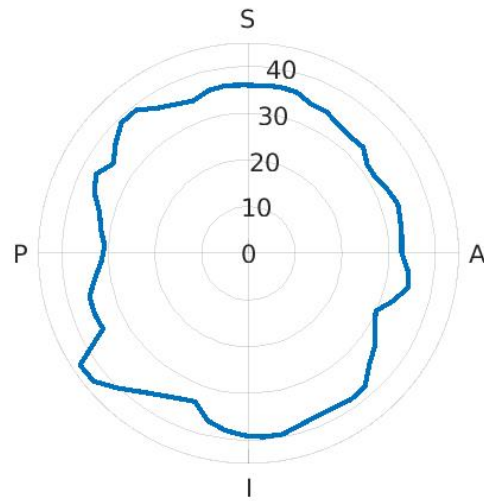
Staple Surface



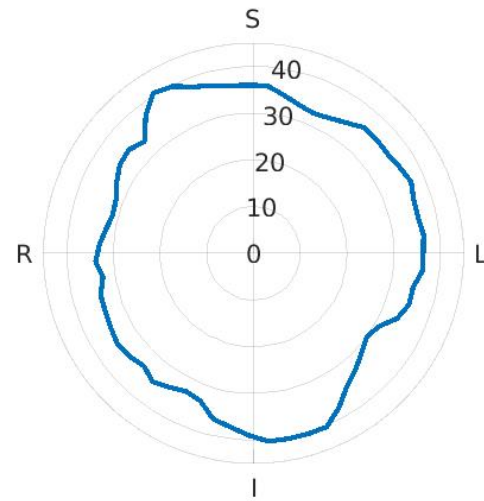
Staple-Centroid Radius Function (SCRF)



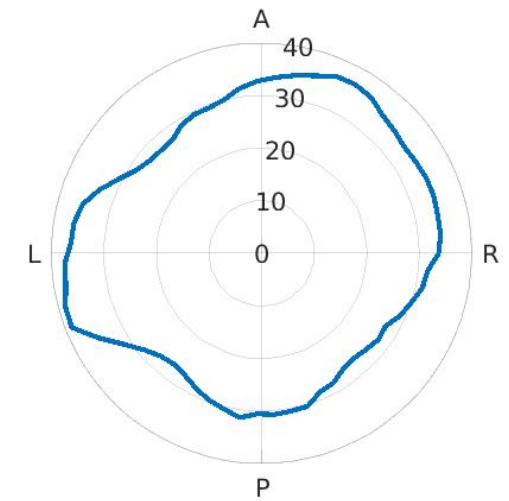
SCRF: Sagittal



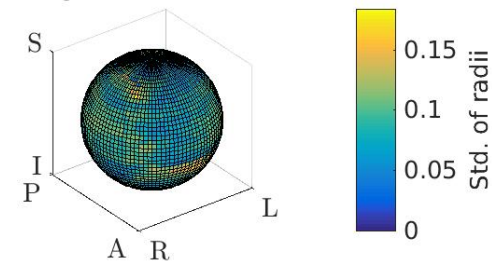
SCRF: Coronal



SCRF: Axial



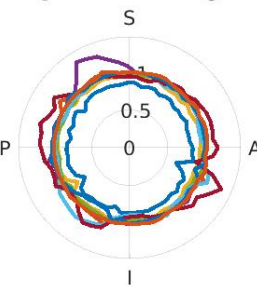
Disagreement Function



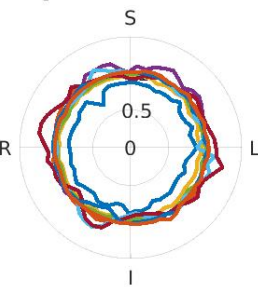
Direction: Average of Disagreement Function

L: 0.087  
R: 0.092  
P: 0.085  
A: 0.078  
I: 0.058  
S: 0.065

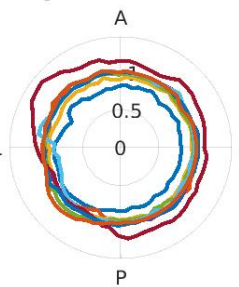
Warped Contours: Sagittal



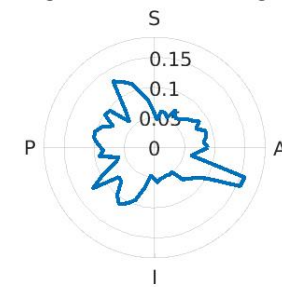
Warped Contours: Coronal



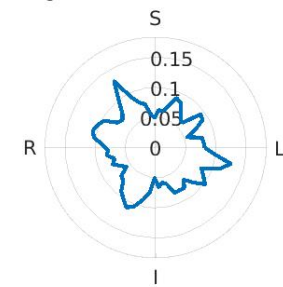
Warped Contours: Axial



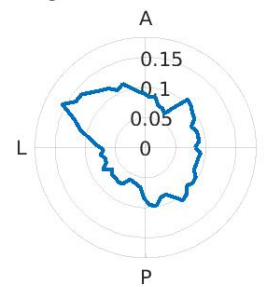
Disagreement Function: Sagittal



Disagreement Function: Coronal

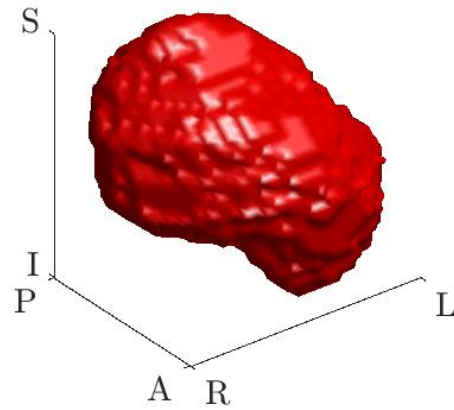


Disagreement Function: Axial

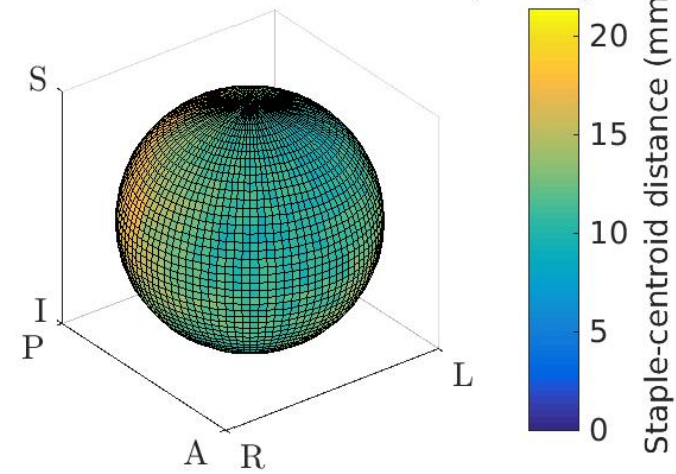


# Case 2

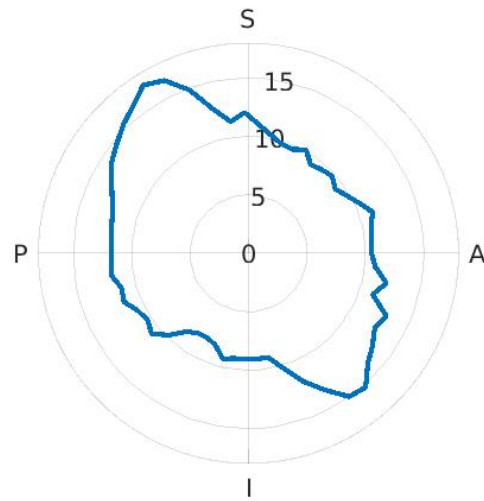
Staple Surface



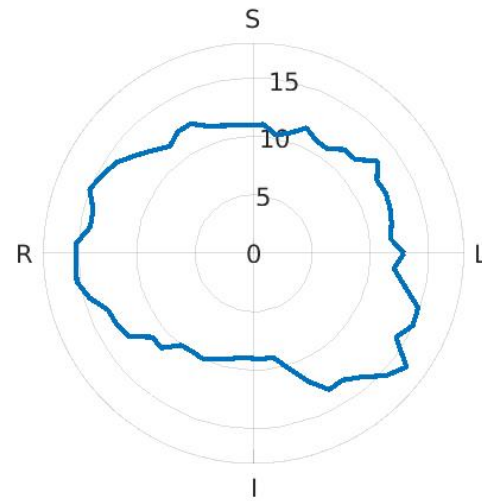
Staple-Centroid Radius Function (SCRF)



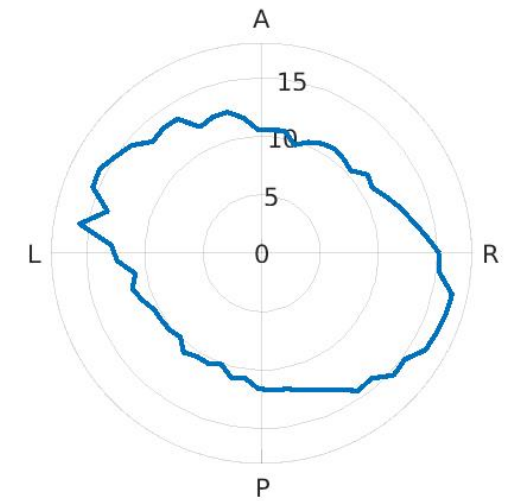
SCRF: Sagittal



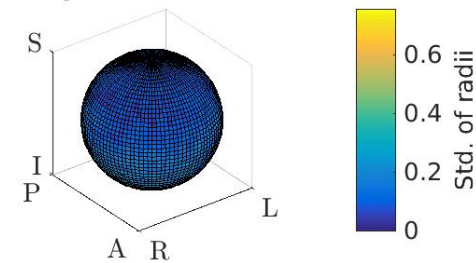
SCRF: Coronal



SCRF: Axial



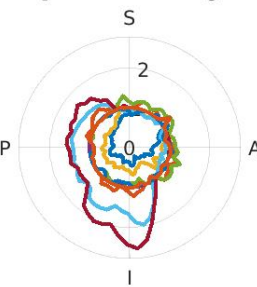
Disagreement Function



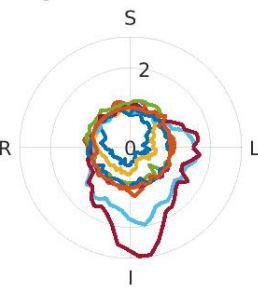
Direction: Average of Disagreement Function

L: 0.380  
R: 0.139  
P: 0.334  
A: 0.157  
I: 0.598  
S: 0.115

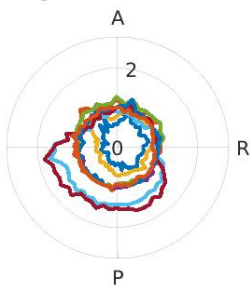
Warped Contours: Sagittal



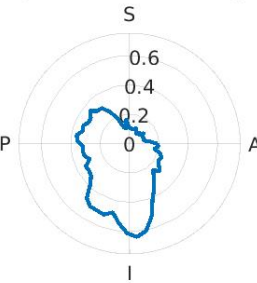
Warped Contours: Coronal



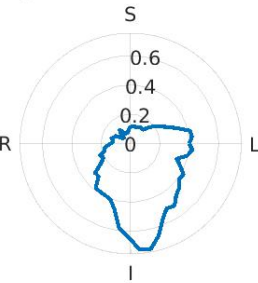
Warped Contours: Axial



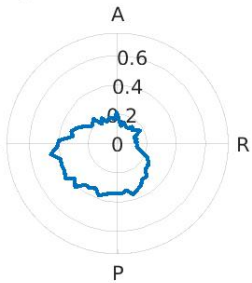
Disagreement Function: Sagittal



Disagreement Function: Coronal

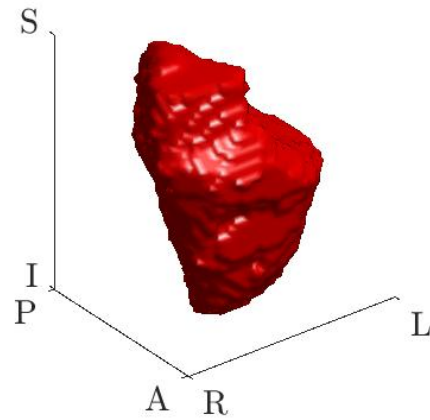


Disagreement Function: Axial

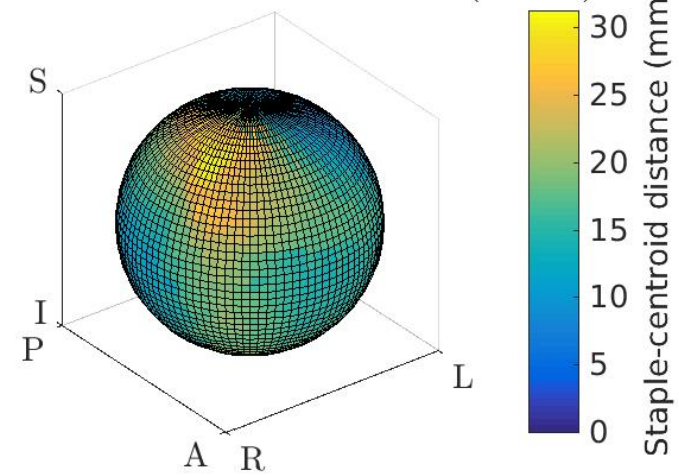


# Case 3

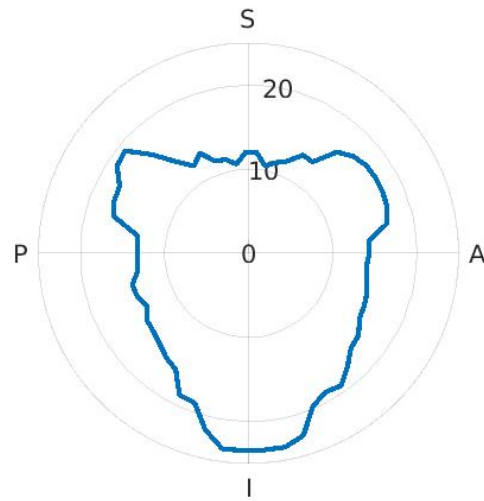
Staple Surface



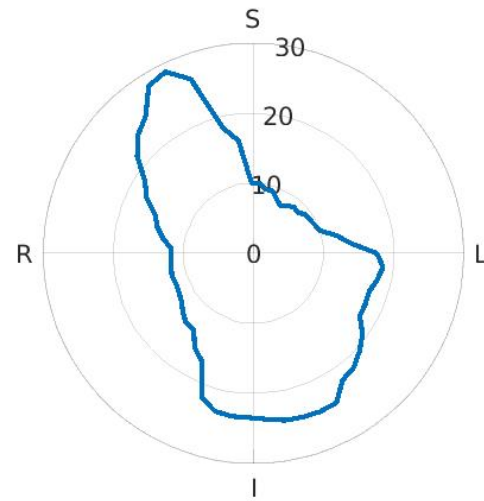
Staple-Centroid Radius Function (SCRF)



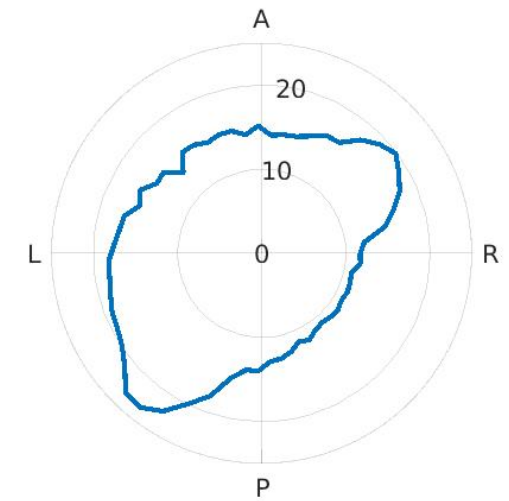
SCRF: Sagittal



SCRF: Coronal

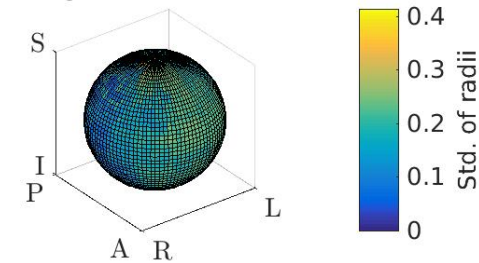


SCRF: Axial





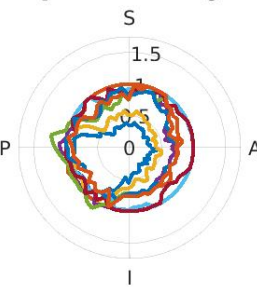
Disagreement Function



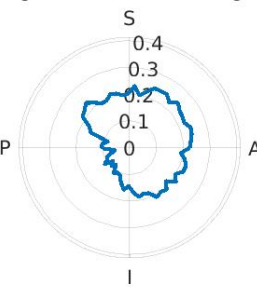
Direction: Average of Disagreement Function

L: 0.215  
R: 0.097  
P: 0.089  
A: 0.215  
I: 0.165  
S: 0.200

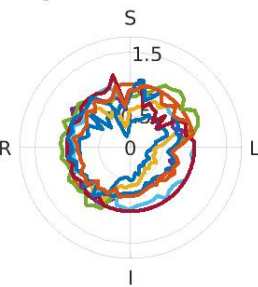
Warped Contours: Sagittal



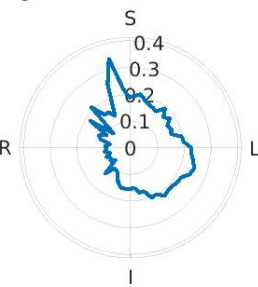
Disagreement Function: Sagittal



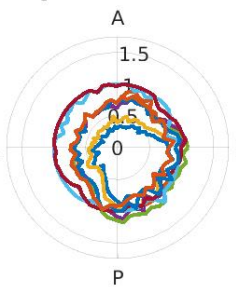
Warped Contours: Coronal



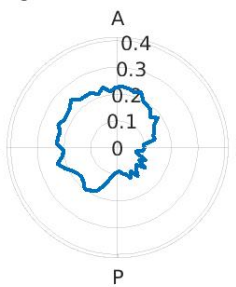
Disagreement Function: Coronal



Warped Contours: Axial



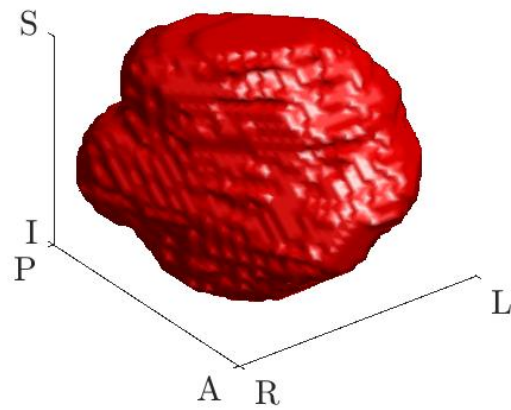
Disagreement Function: Axial



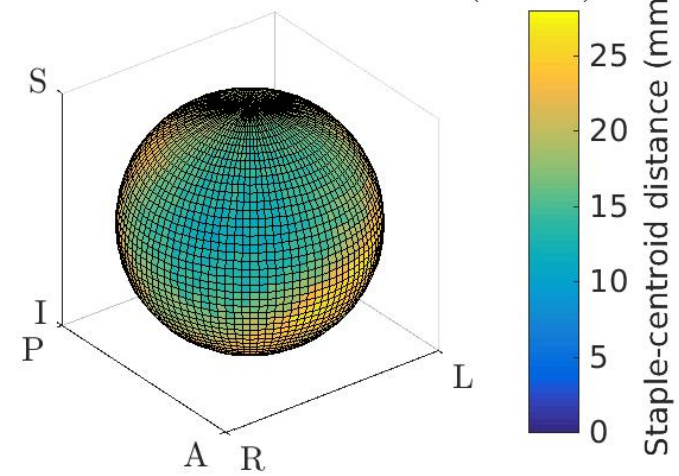


# Case 4

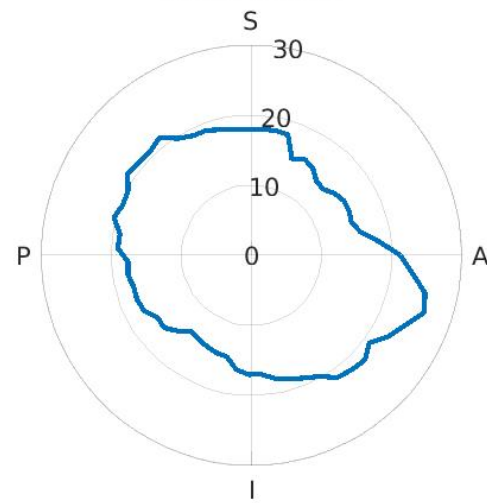
Staple Surface



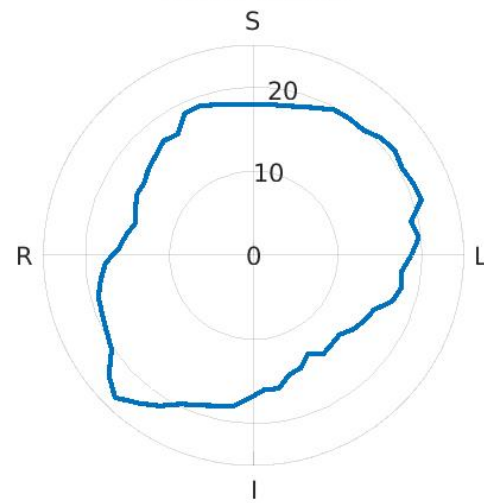
Staple-Centroid Radius Function (SCRF)



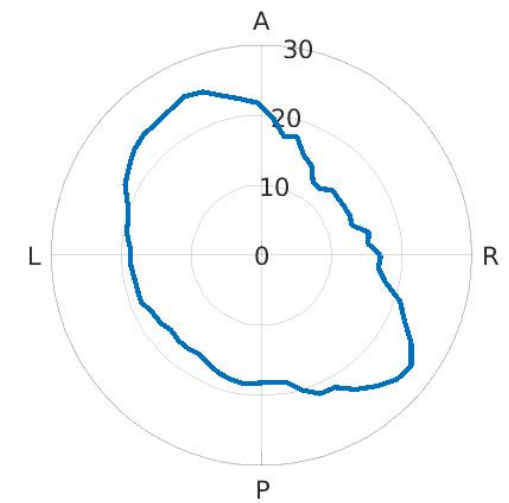
SCRF: Sagittal



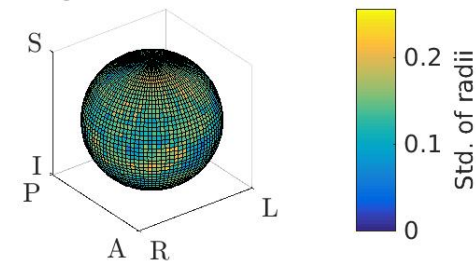
SCRF: Coronal



SCRF: Axial



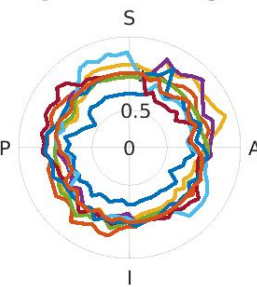
Disagreement Function



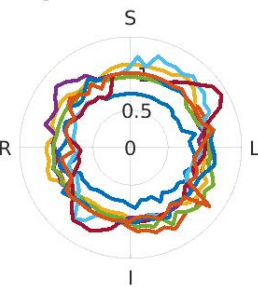
Direction: Average of Disagreement Function

- L: 0.087
- R: 0.137
- P: 0.113
- A: 0.116
- I: 0.101
- S: 0.123

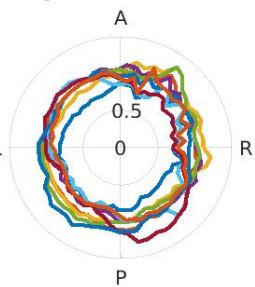
Warped Contours: Sagittal



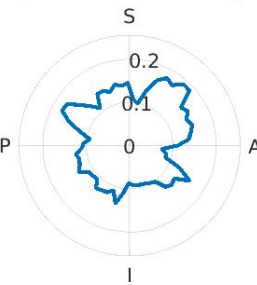
Warped Contours: Coronal



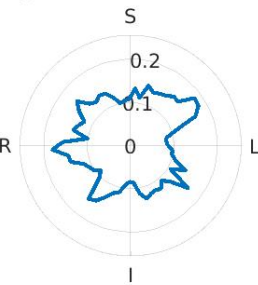
Warped Contours: Axial



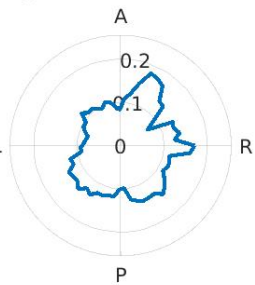
Disagreement Function: Sagittal



Disagreement Function: Coronal

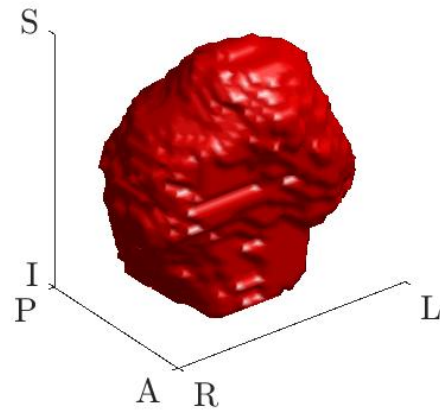


Disagreement Function: Axial

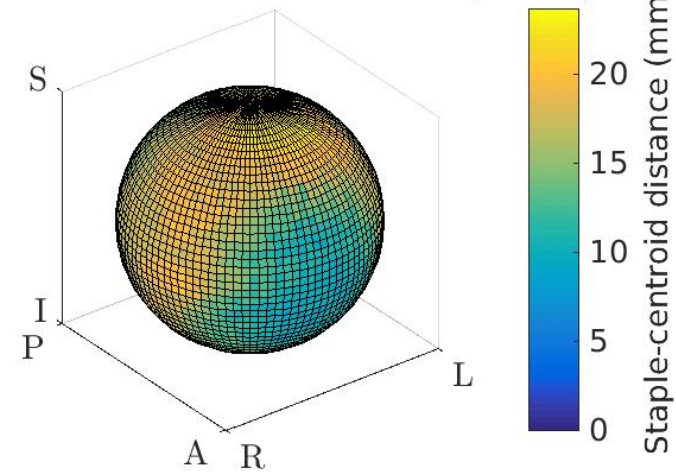


# Case 5

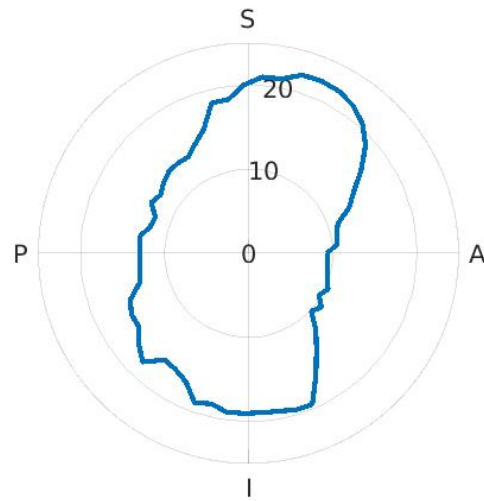
Staple Surface



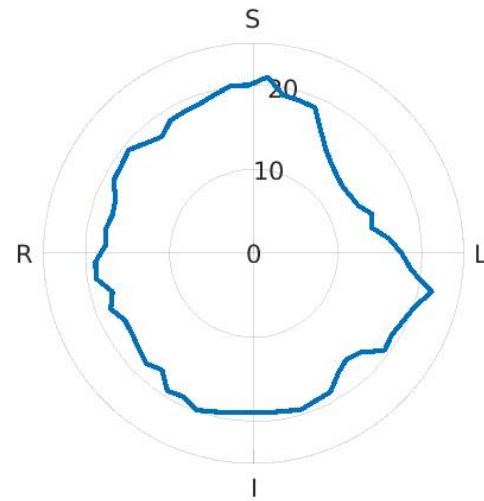
Staple-Centroid Radius Function (SCRF)



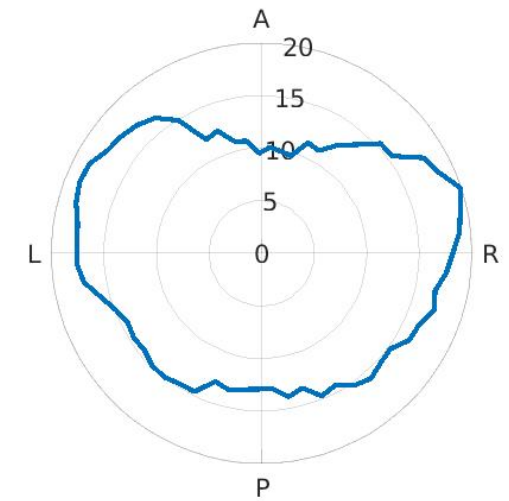
SCRF: Sagittal



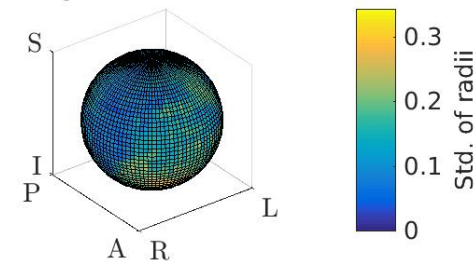
SCRF: Coronal



SCRF: Axial



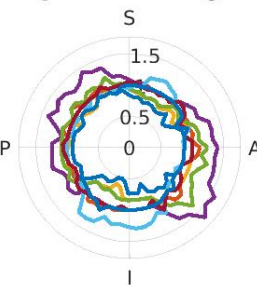
Disagreement Function



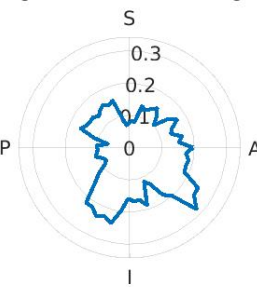
Direction: Average of Disagreement Function

L: 0.088  
R: 0.085  
P: 0.091  
A: 0.160  
I: 0.180  
S: 0.073

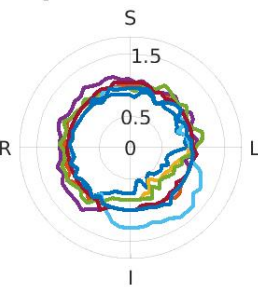
Warped Contours: Sagittal



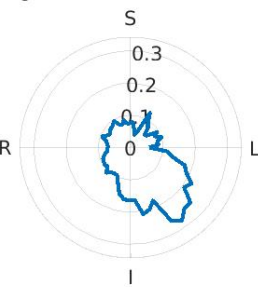
Disagreement Function: Sagittal



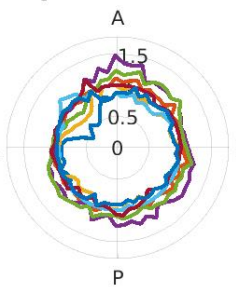
Warped Contours: Coronal



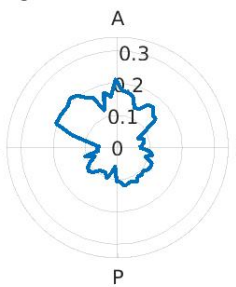
Disagreement Function: Coronal



Warped Contours: Axial

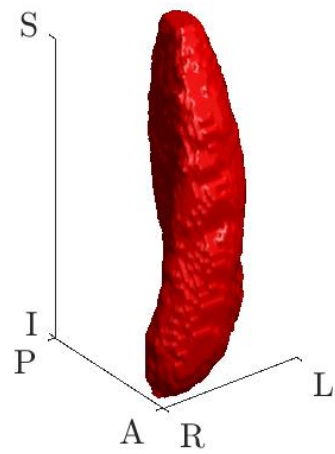


Disagreement Function: Axial

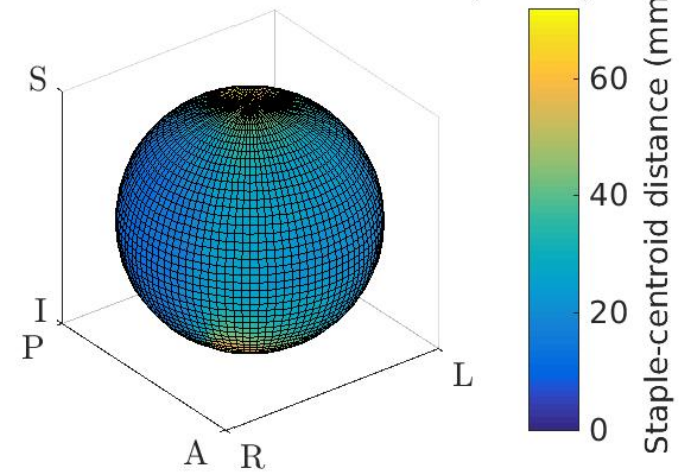


# Case 6

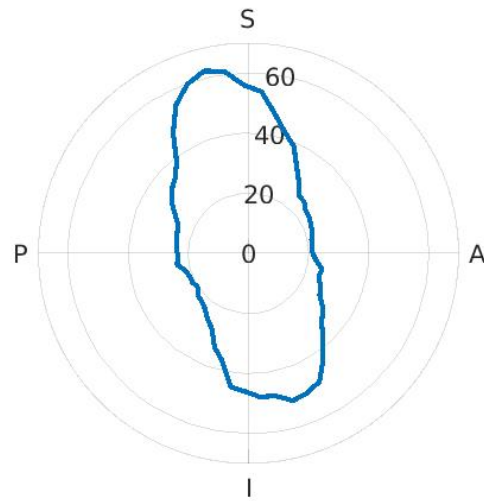
Staple Surface



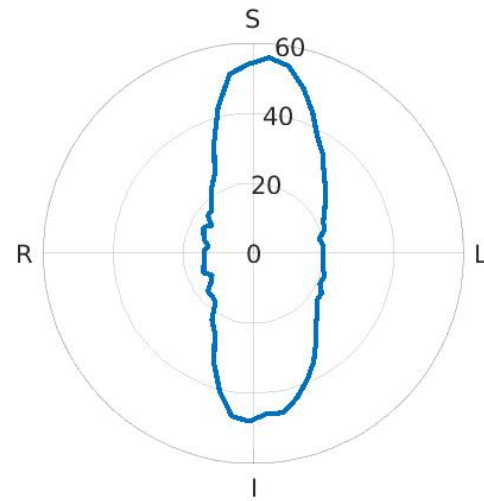
Staple-Centroid Radius Function (SCRF)



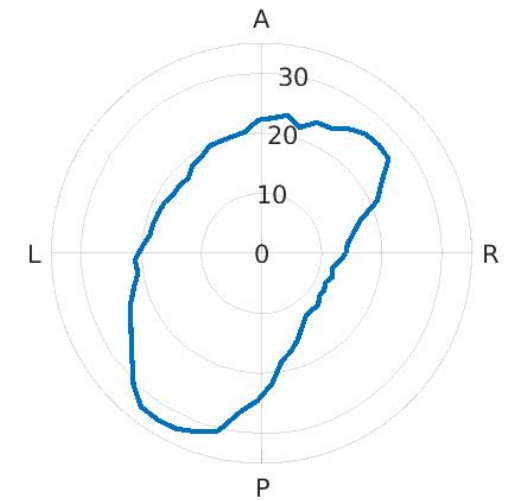
SCRF: Sagittal



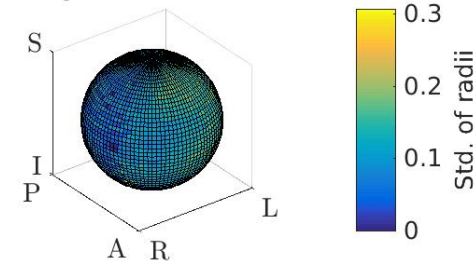
SCRF: Coronal



SCRF: Axial



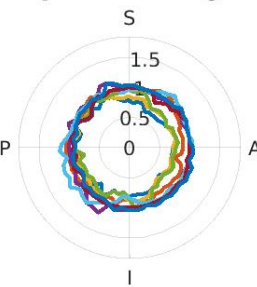
Disagreement Function



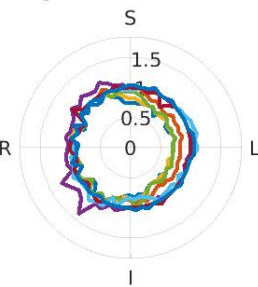
Direction: Average of Disagreement Function

L: 0.154  
R: 0.061  
P: 0.103  
A: 0.141  
I: 0.096  
S: 0.103

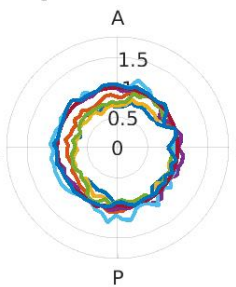
Warped Contours: Sagittal



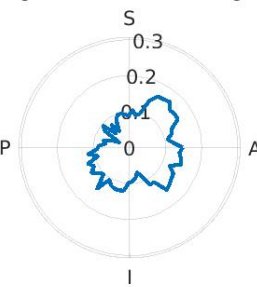
Warped Contours: Coronal



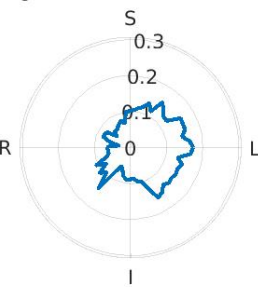
Warped Contours: Axial



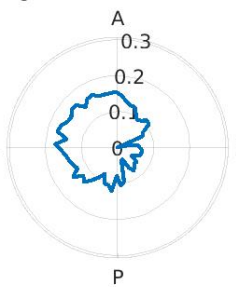
Disagreement Function: Sagittal



Disagreement Function: Coronal



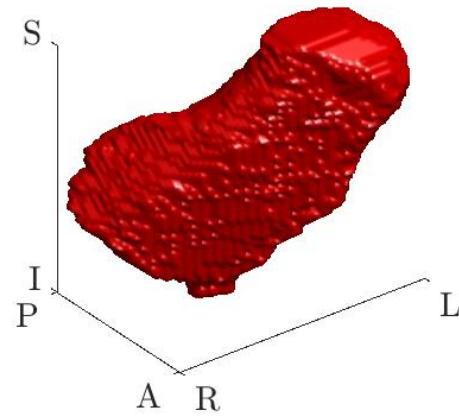
Disagreement Function: Axial



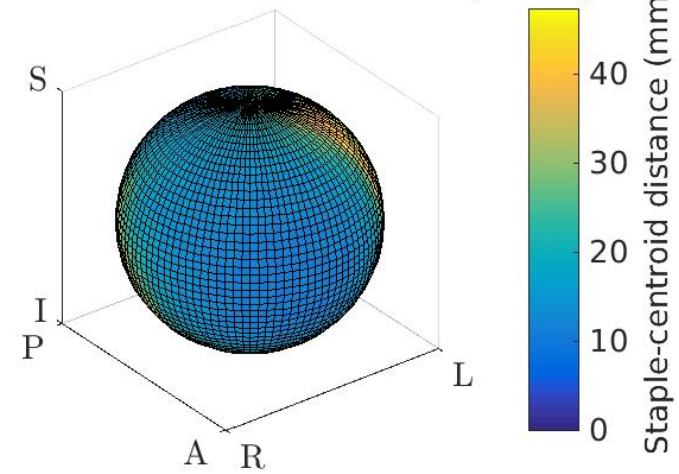


# Case 7

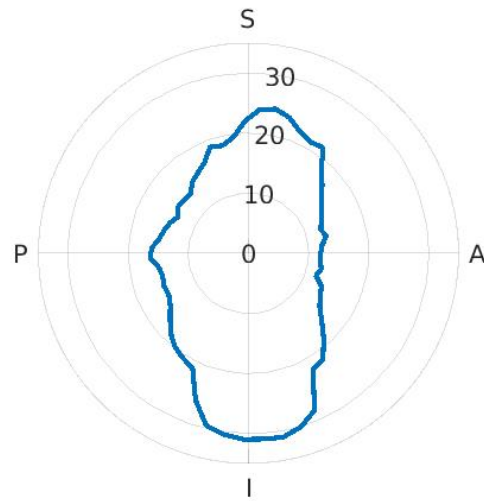
Staple Surface



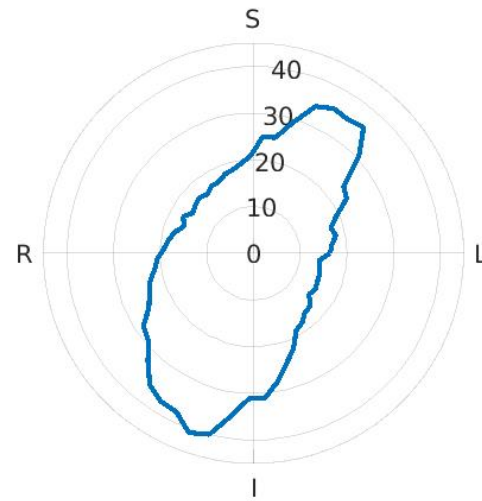
Staple-Centroid Radius Function (SCRF)



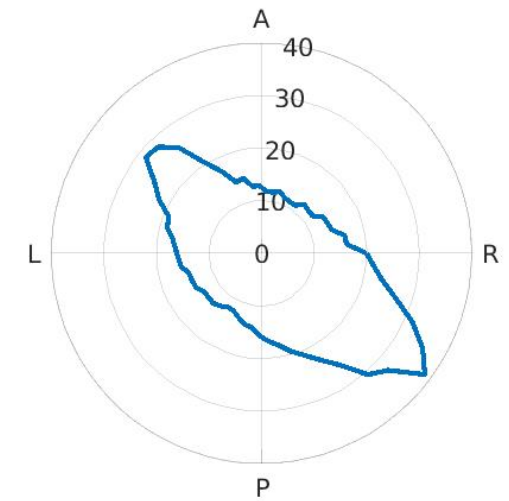
SCRF: Sagittal



SCRF: Coronal

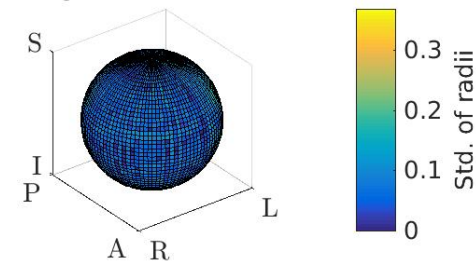


SCRF: Axial





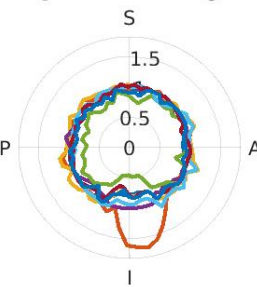
Disagreement Function



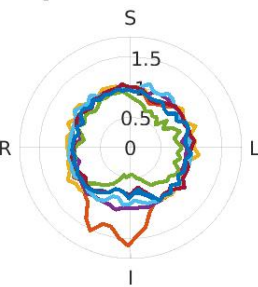
Direction: Average of Disagreement Function

L: 0.088  
R: 0.056  
P: 0.094  
A: 0.049  
I: 0.287  
S: 0.074

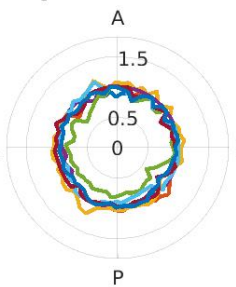
Warped Contours: Sagittal



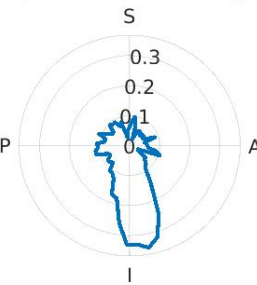
Warped Contours: Coronal



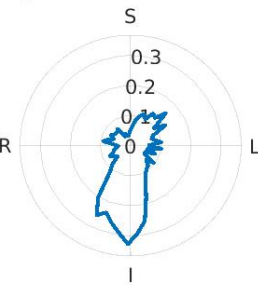
Warped Contours: Axial



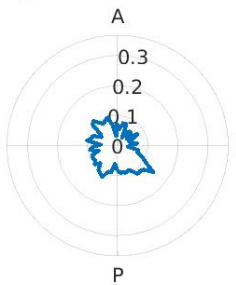
Disagreement Function: Sagittal



Disagreement Function: Coronal

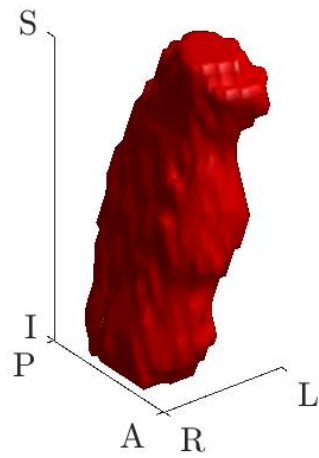


Disagreement Function: Axial

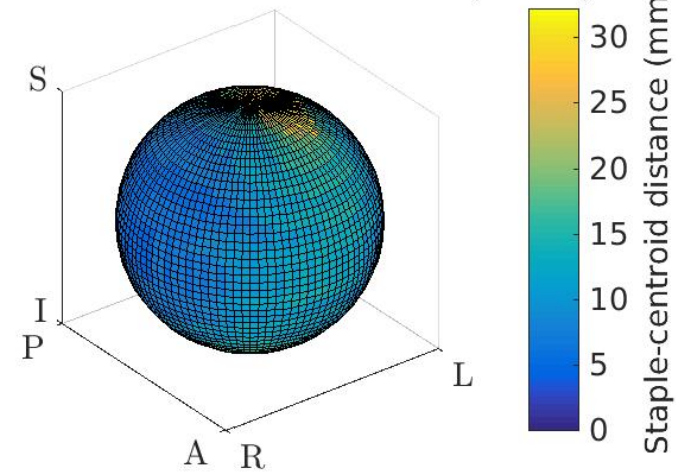


# Case 8

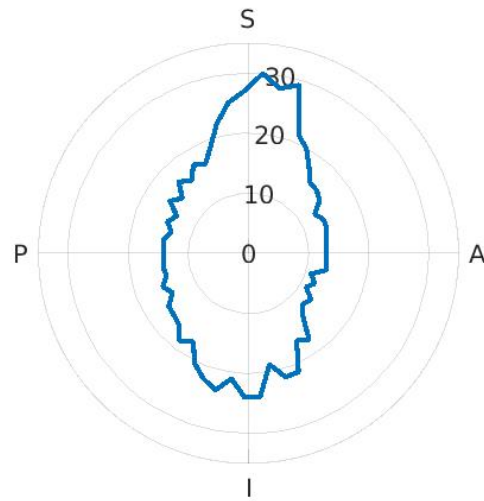
Staple Surface



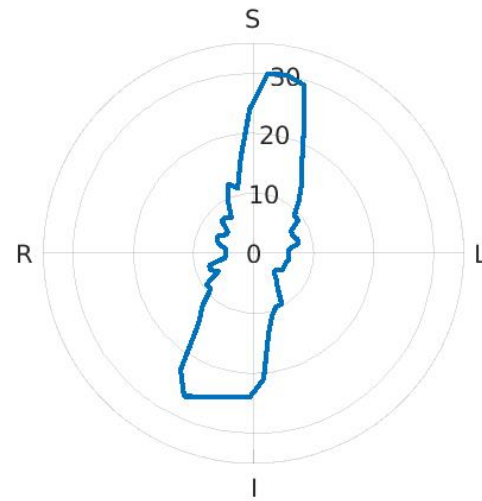
Staple-Centroid Radius Function (SCRF)



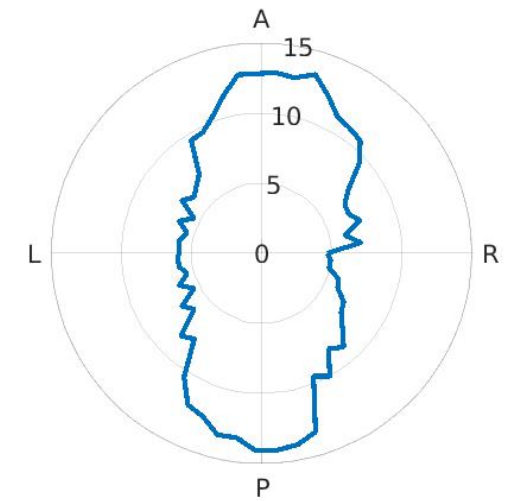
SCRF: Sagittal



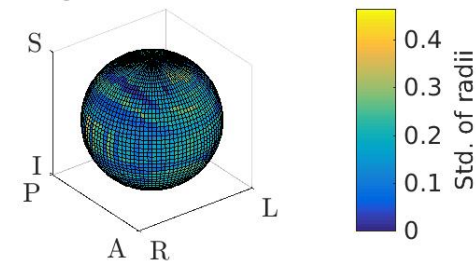
SCRF: Coronal



SCRF: Axial



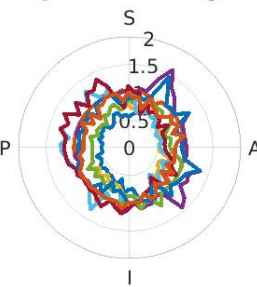
Disagreement Function



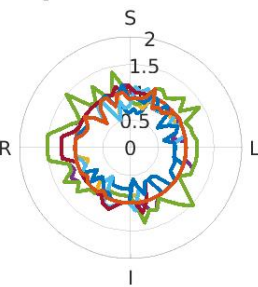
Direction: Average of Disagreement Function

L: 0.131  
R: 0.197  
P: 0.228  
A: 0.202  
I: 0.132  
S: 0.157

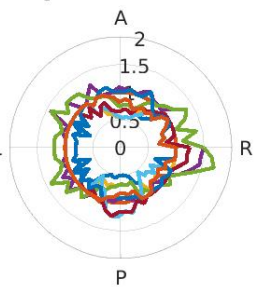
Warped Contours: Sagittal



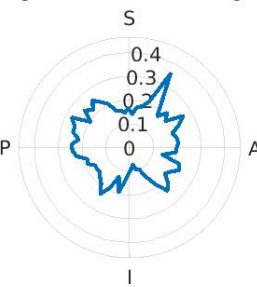
Warped Contours: Coronal



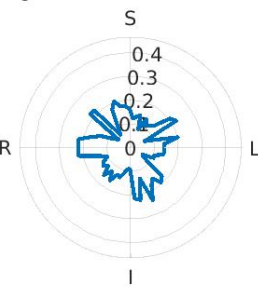
Warped Contours: Axial



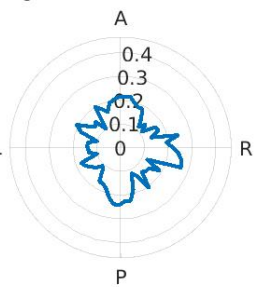
Disagreement Function: Sagittal



Disagreement Function: Coronal

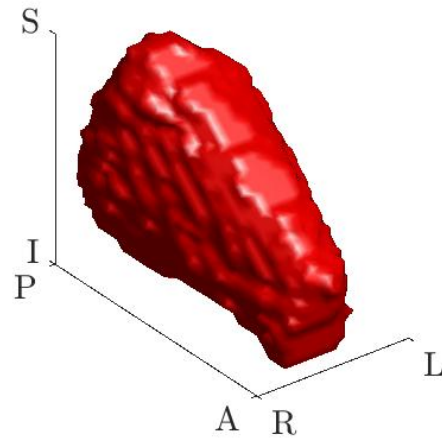


Disagreement Function: Axial

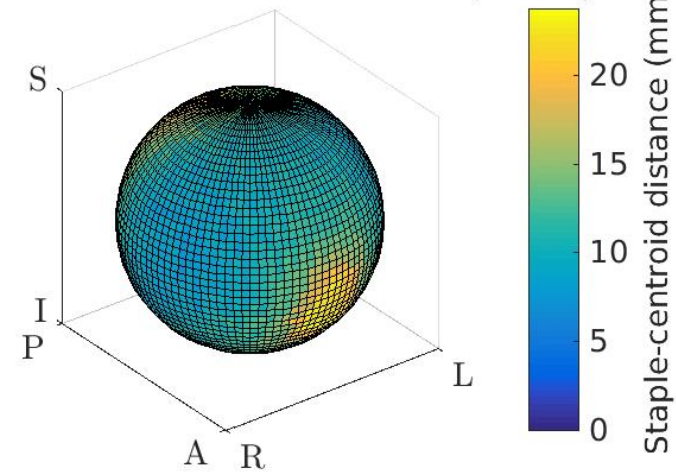


# Case 9

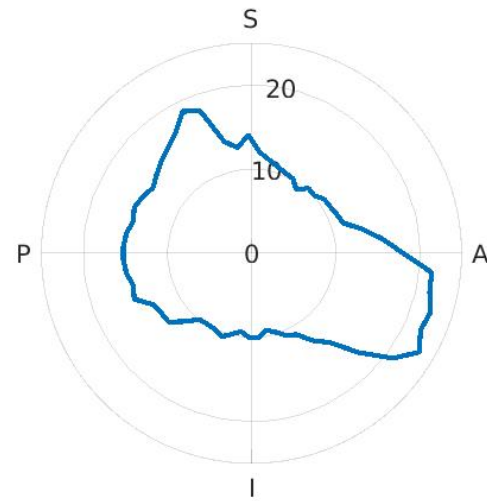
Staple Surface



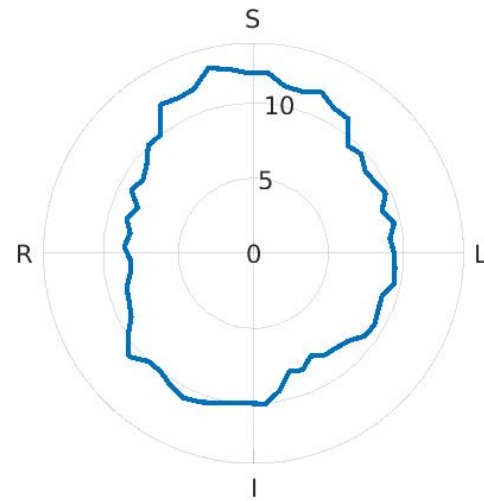
Staple-Centroid Radius Function (SCRF)



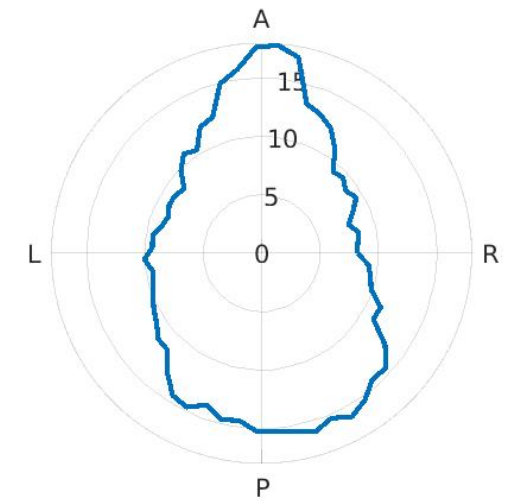
SCRF: Sagittal



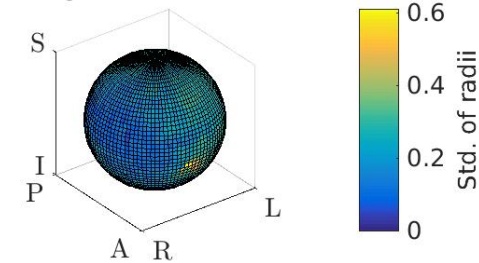
SCRF: Coronal



SCRF: Axial



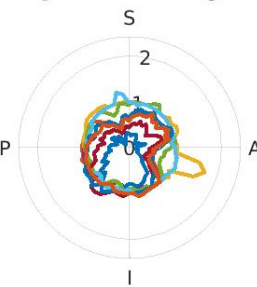
Disagreement Function



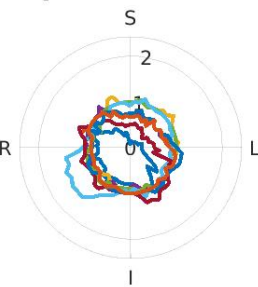
Direction: Average of Disagreement Function

L: 0.249  
R: 0.135  
P: 0.185  
A: 0.254  
I: 0.077  
S: 0.272

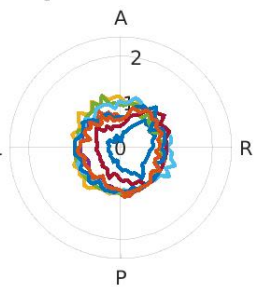
Warped Contours: Sagittal



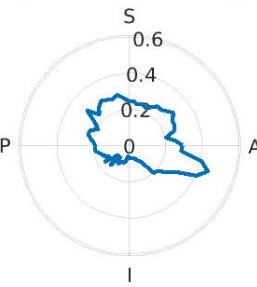
Warped Contours: Coronal



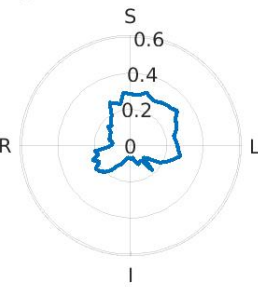
Warped Contours: Axial



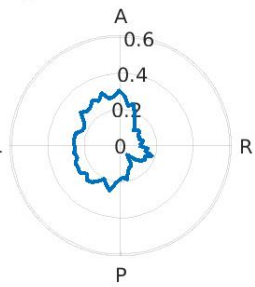
Disagreement Function: Sagittal



Disagreement Function: Coronal

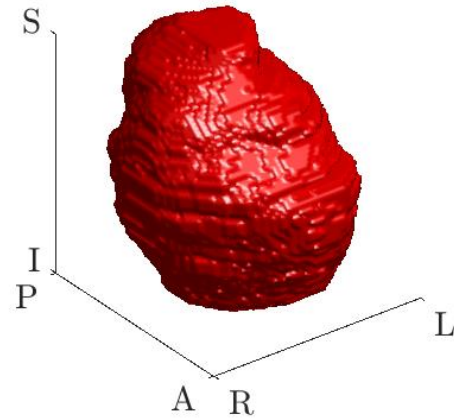


Disagreement Function: Axial

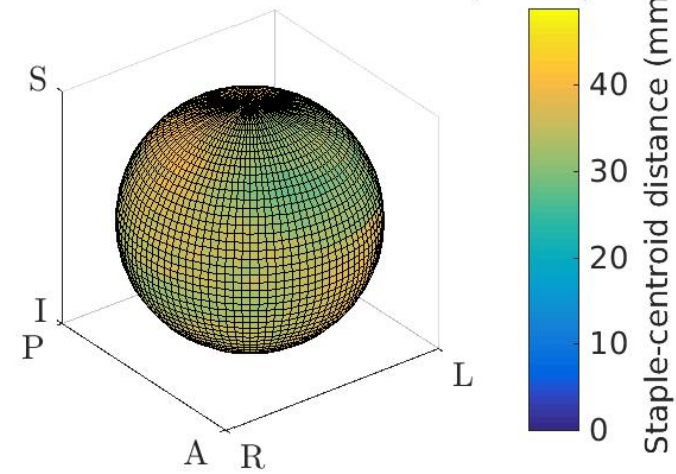


# Case 10

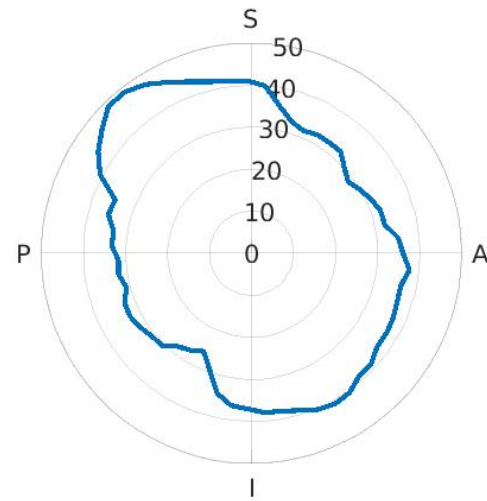
Staple Surface



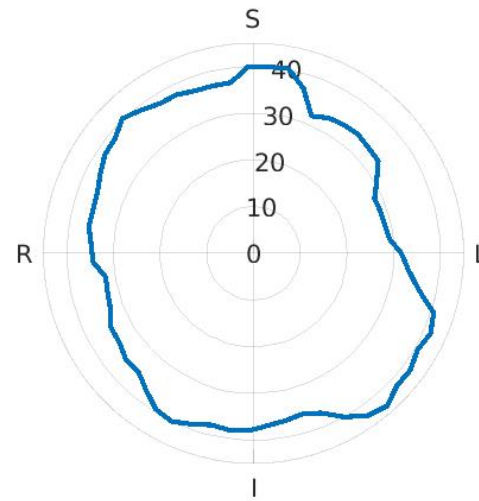
Staple-Centroid Radius Function (SCRF)



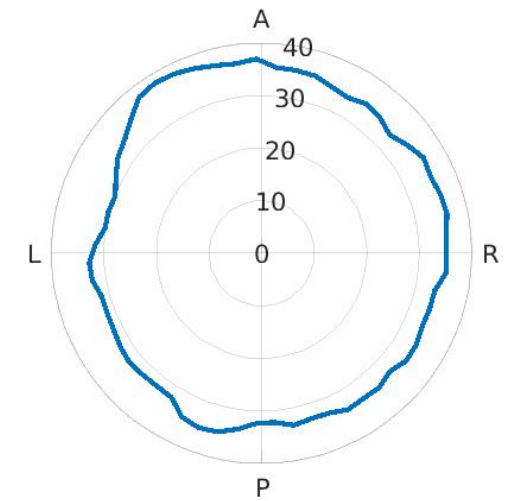
SCRF: Sagittal



SCRF: Coronal

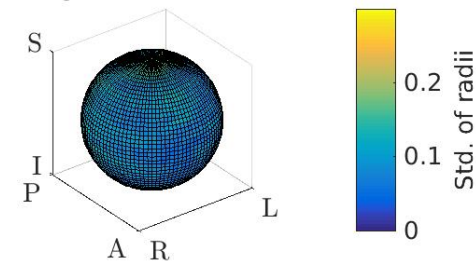


SCRF: Axial





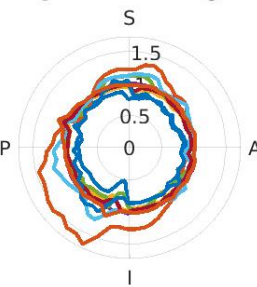
Disagreement Function



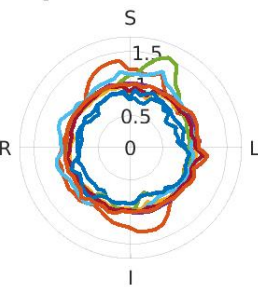
Direction: Average of Disagreement Function

- L: 0.107
- R: 0.105
- P: 0.136
- A: 0.073
- I: 0.154
- S: 0.164

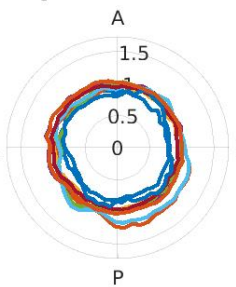
Warped Contours: Sagittal



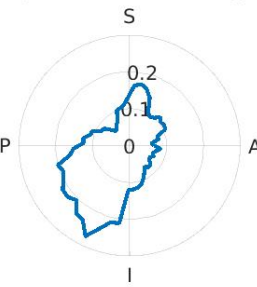
Warped Contours: Coronal



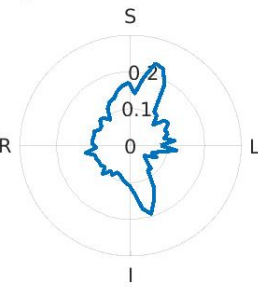
Warped Contours: Axial



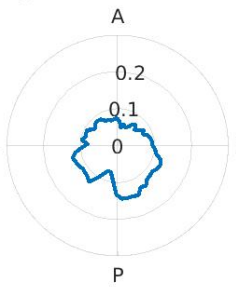
Disagreement Function: Sagittal



Disagreement Function: Coronal



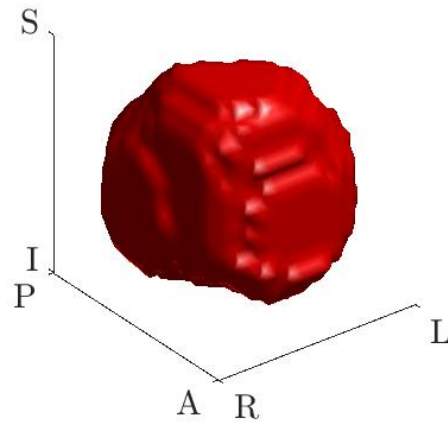
Disagreement Function: Axial



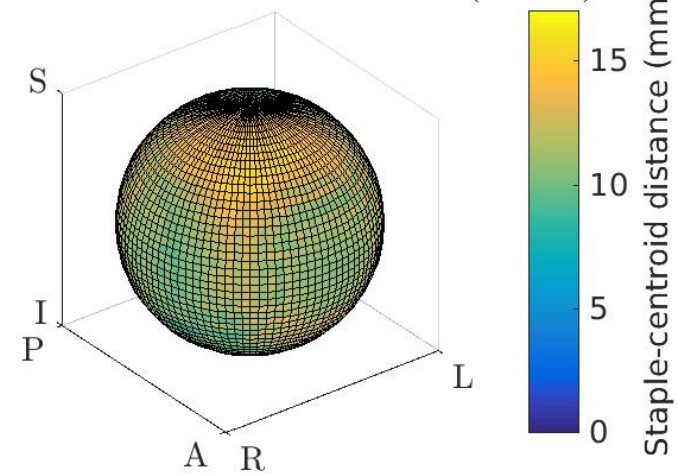


# Case 11

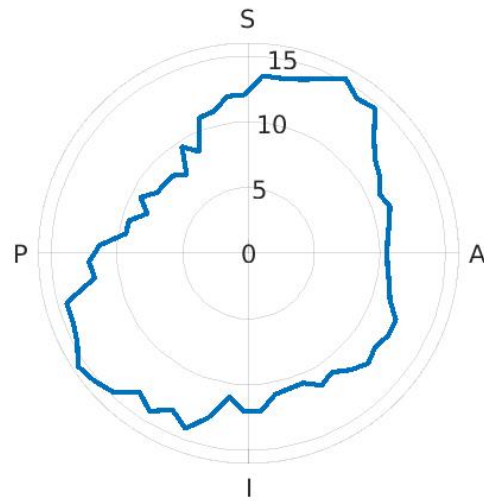
Staple Surface



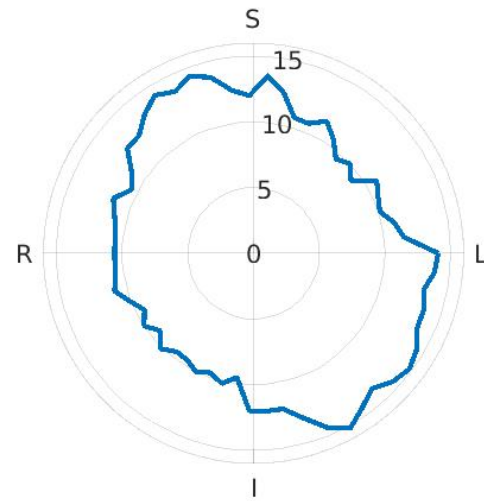
Staple-Centroid Radius Function (SCRF)



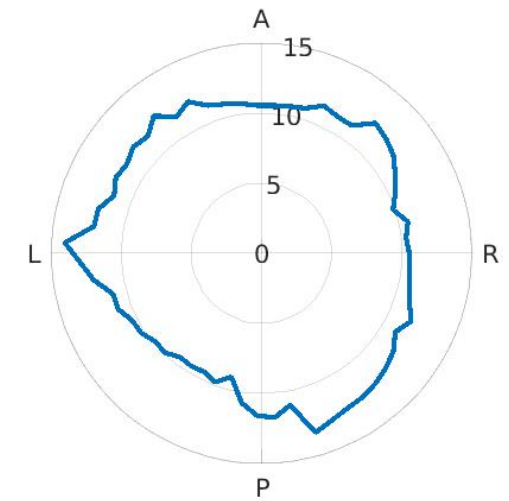
SCRF: Sagittal



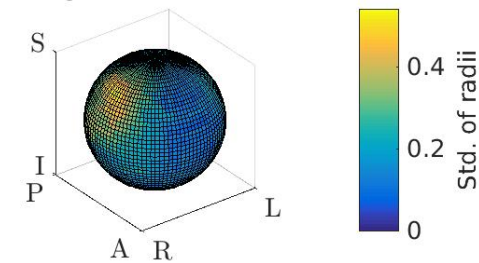
SCRF: Coronal



SCRF: Axial



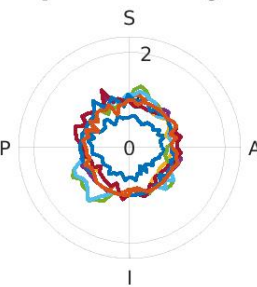
Disagreement Function



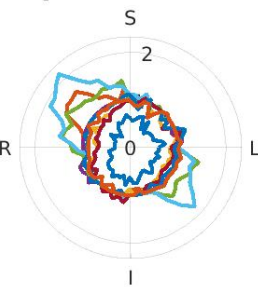
Direction: Average of Disagreement Function

L: 0.165  
R: 0.285  
P: 0.097  
A: 0.113  
I: 0.118  
S: 0.167

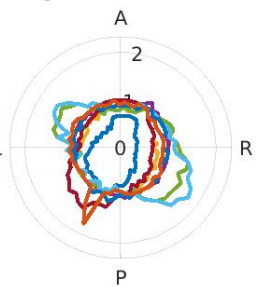
Warped Contours: Sagittal



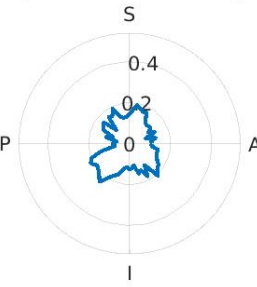
Warped Contours: Coronal



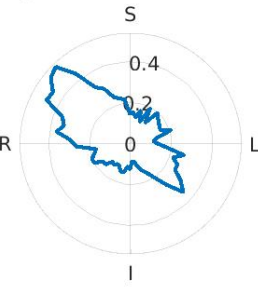
Warped Contours: Axial



Disagreement Function: Sagittal



Disagreement Function: Coronal



Disagreement Function: Axial

