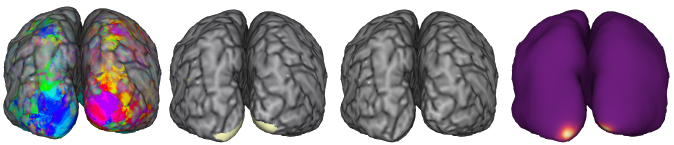
session 1

① find best vertex

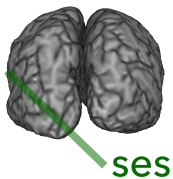


pRF X V1 X curvature = **target**

② derive line orientation

$$\vec{a}=\begin{bmatrix} d \\ e \\ f \end{bmatrix} \quad \vec{b}=\begin{bmatrix} 1 \\ 0 \\ 0 \end{bmatrix}_x \begin{bmatrix} 0 \\ 1 \\ 0 \end{bmatrix}_y \begin{bmatrix} 0 \\ 0 \\ 1 \end{bmatrix}_z$$

$$\cos(\theta) = \frac{\vec{a} \bullet \vec{b}}{\|\vec{a}\| \bullet \|\vec{b}\|}$$



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session 2

③ coregister

ANTs matrix

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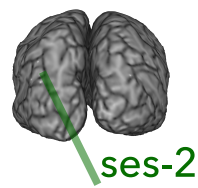
④ apply matrix

coordinate

$$\begin{bmatrix} -7.42 \\ -92.97 \\ -15.28 \end{bmatrix} \times \text{matrix} = \begin{bmatrix} 2.78 \\ -94.18 \\ -16.63 \end{bmatrix}$$

normal vector

$$\vec{a}'=\begin{bmatrix} d \\ e \\ f \end{bmatrix} \times \text{matrix} = \begin{bmatrix} 39.25° \\ 50.75° \\ -16.63° \end{bmatrix}$$



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