$$(x_1,\ldots,x_{D+1})\in\mathbb{S}^D$$
Global Rotation  $R_ux$ 

$$(x_1,\ldots,x_d)$$

$$(x_{d+1},\ldots,x_{D+1})$$

$$(x_{d+1},\ldots,x_{D+1})$$
Cond. Rotation  $Q_vx$ 

$$v=\mathrm{NN}(x_{d+1},\ldots,x_{D+1})$$

$$Circle Slice Identification 
$$T((x_1,x_2),(x_3,x_4),\ldots,(x_{d-1},x_d)) = (\theta_1,\ldots,\theta_{d/2})$$

$$=(\theta_1,\ldots,\theta_{d/2}|\psi_1,\ldots,\psi_{d/2}) = (\eta_1,\ldots,\eta_{d/2})$$

$$=(\theta_1,\ldots,\theta_{d/2})$$
Circle Slices  $\to$  Cartesian coord. 
$$T^{-1}(\theta_1',\ldots,\theta_{d/2}') = (z_1,\ldots,z_d)$$

$$(x_{d+1},\ldots,x_{D+1})$$

$$=(z_{d+1},\ldots,z_{D+1})$$
Id
$$(z_1,\ldots,z_{D+1})$$$$