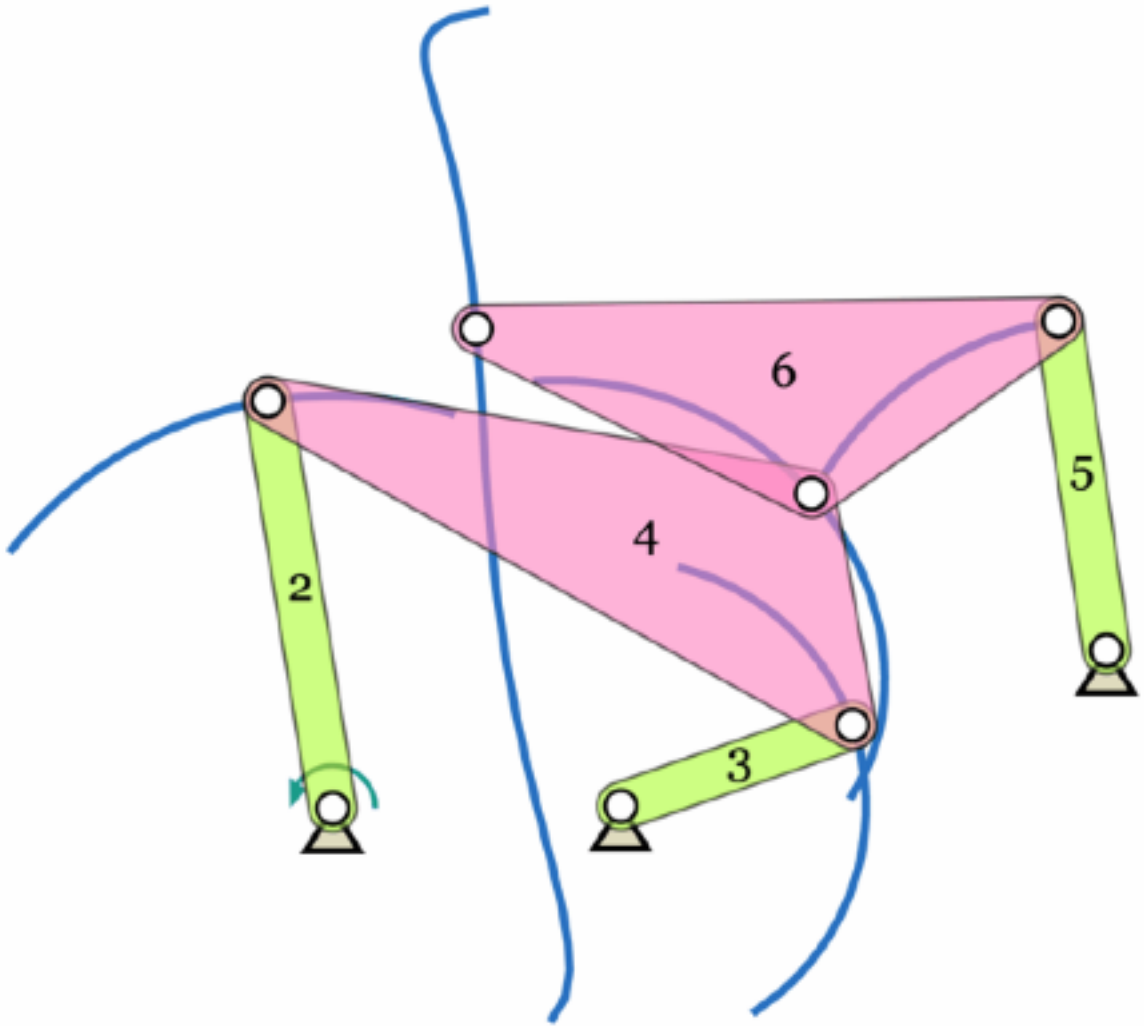
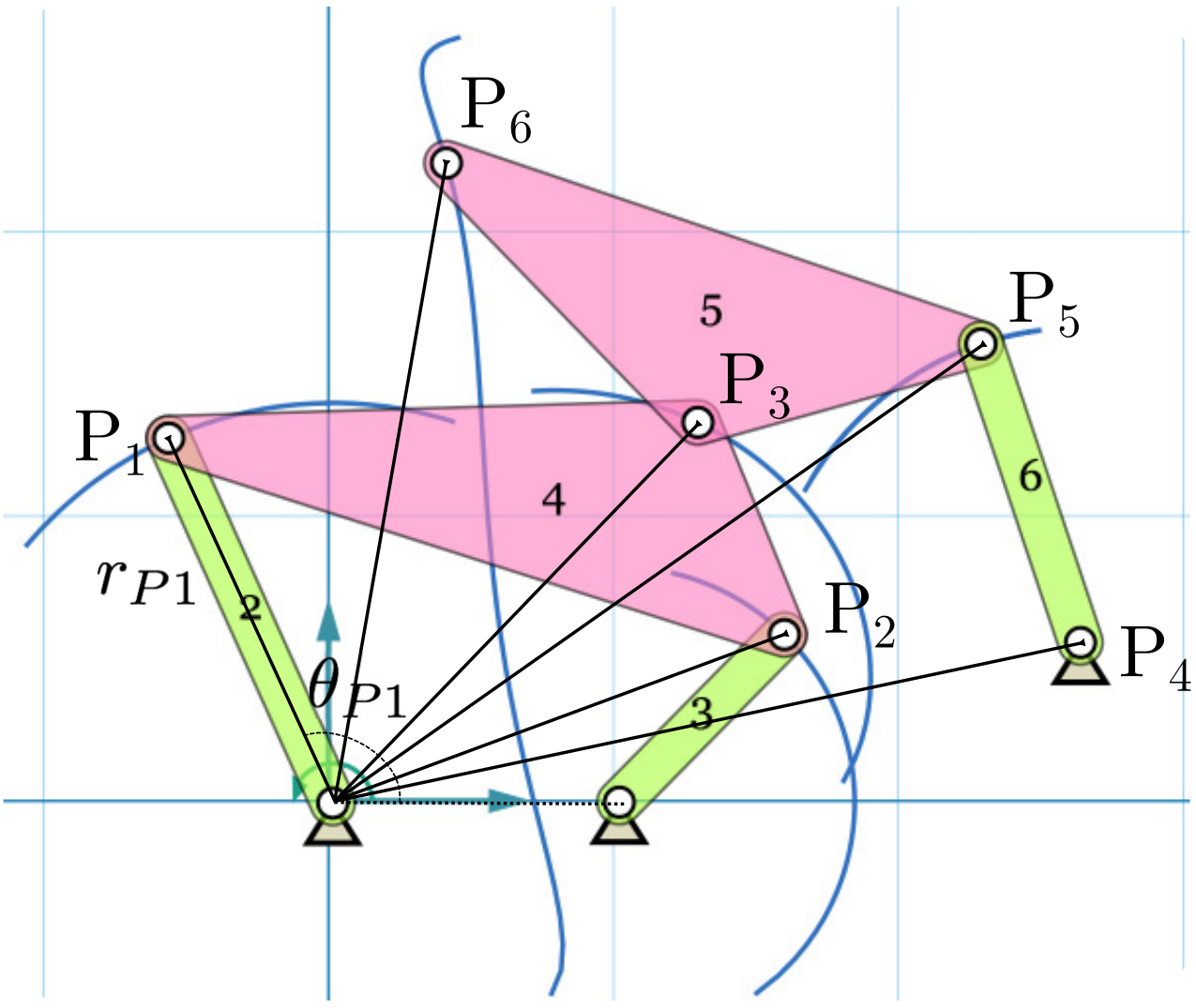
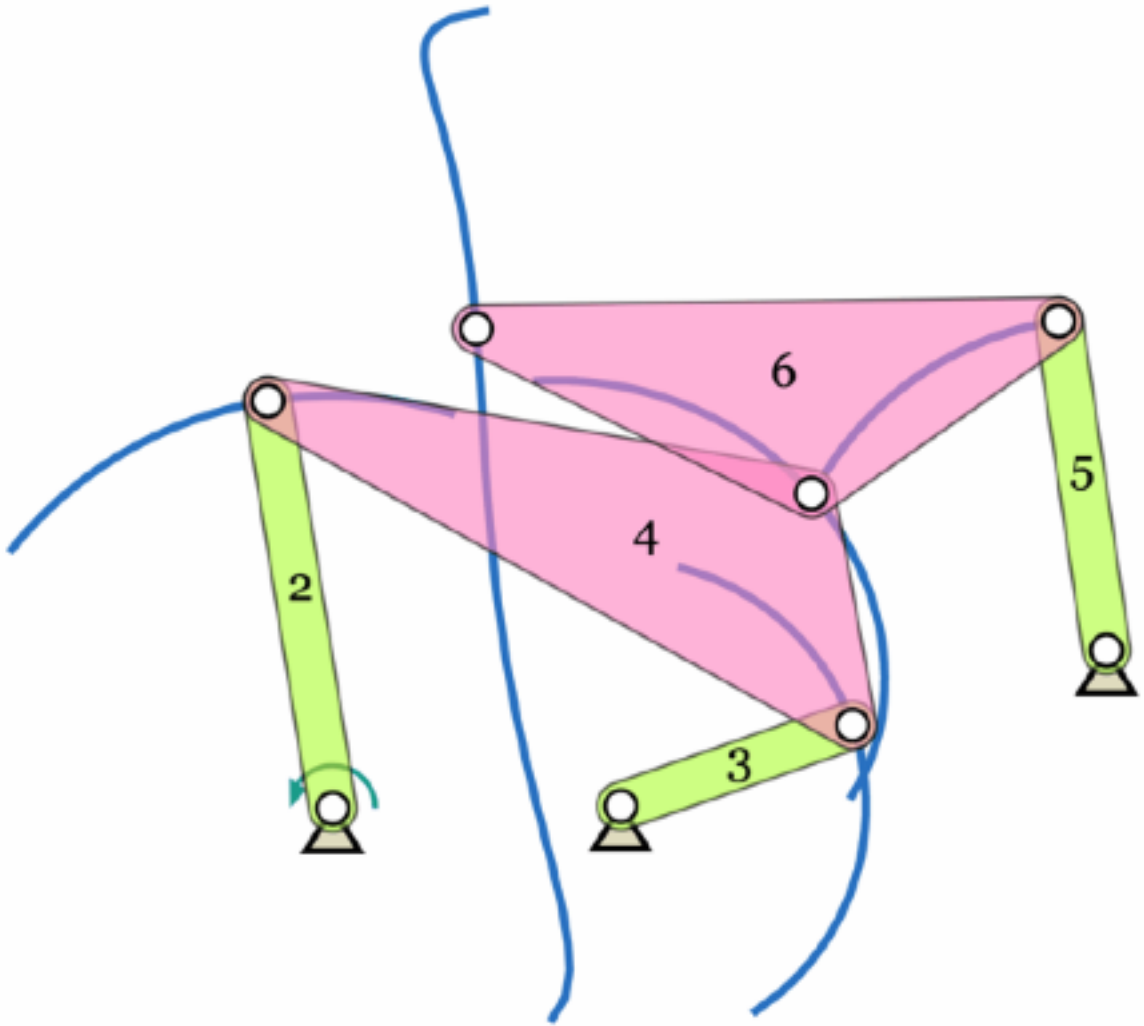

6
5
4
2
3

Linkage as Observed Variable (X)


P6
5
P5
P3
P1
4
6
r_{P1}
2
P2
P4
θ_{P1}
3

$$X = \{r_{P1}, \theta_{P1}, r_{P2}, \theta_{P2}, \ldots, r_{P6}, \theta_{P6}\}_{i=1}^{100},$$


6
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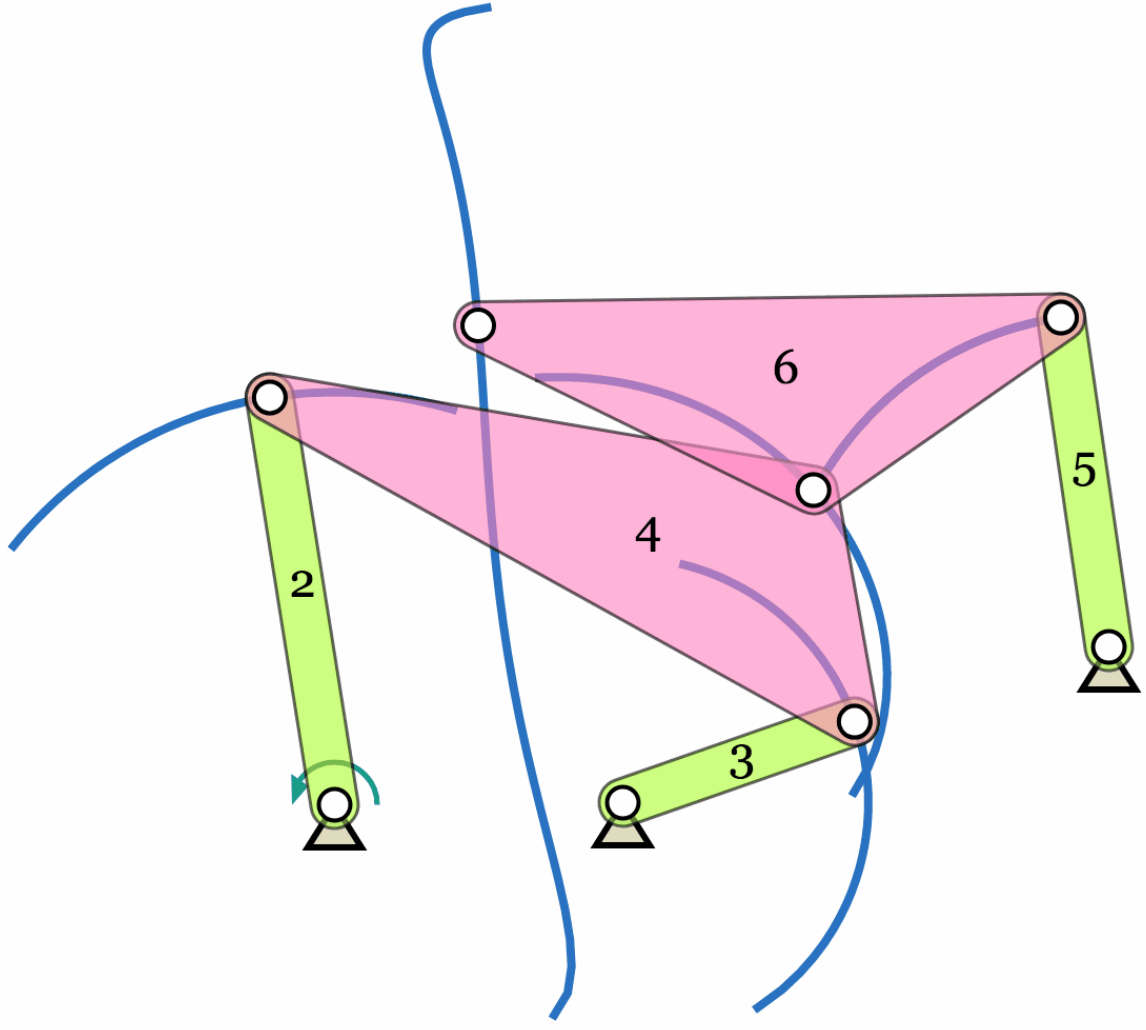
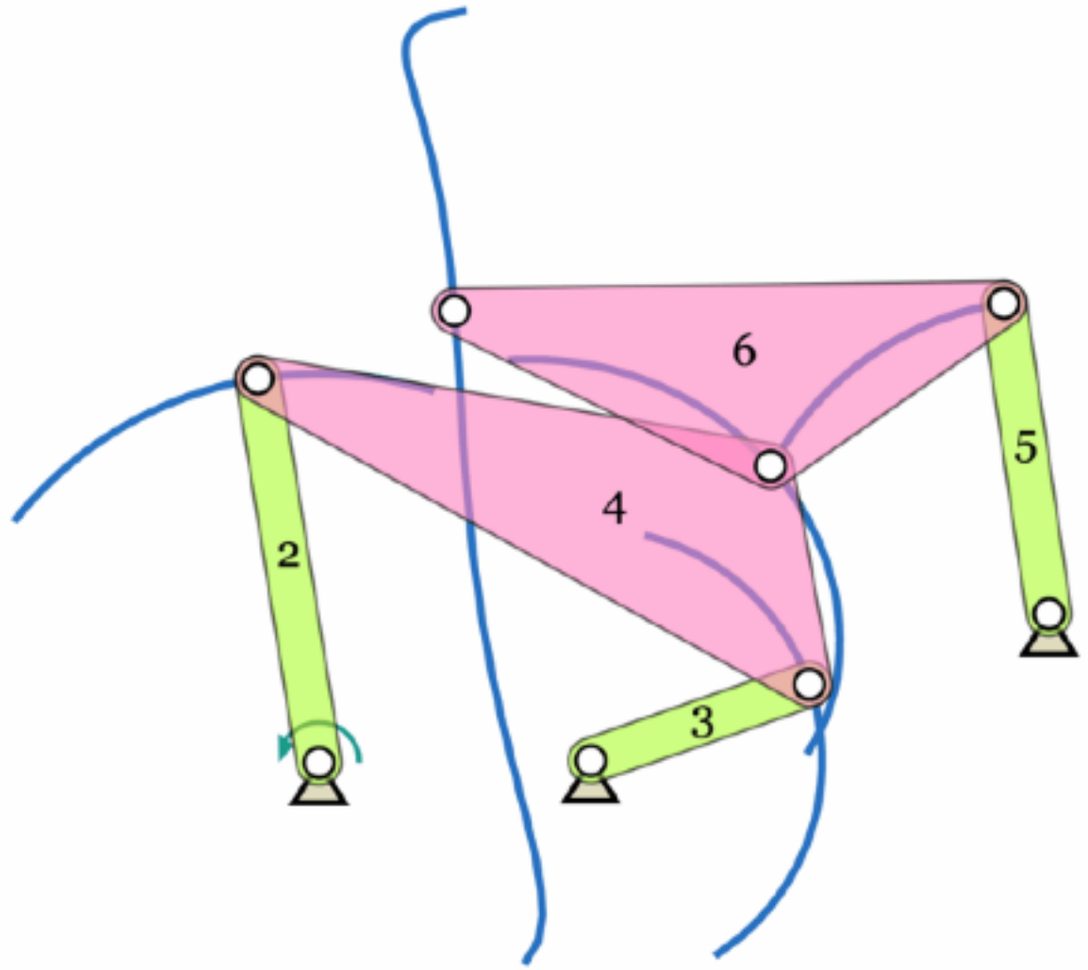

6
5
4
2
3

Linkage as Observed Variable (X)



$$X = \{r_{P1}, \theta_{P1}, r_{P2}, \theta_{P2}, \ldots, r_{P6}, \theta_{P6}\}_{i=1}^{100},$$

C-VAE

- Observed data is supposedly generated by an unknown function G of continuous latent variables and a condition Y

$$X = G(z, Y; \theta_g)$$

- Recognition Model approximates

$$\mu, \sigma = Q(X, Y; \theta_e)$$

$$q(z \mid X) = \mathcal{N}(\mu, \sigma)$$

- C-VAE learns to model the conditional distribution of X and Y